FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

OFFICE OF AIR MANAGEMENT

and

INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION

Praxair Surface Technologies
1245 Main Street, Indianapolis, Indiana 46224
1415 Main Street, Indianapolis, Indiana 46224
1555 Main Street, Indianapolis, Indiana 46224
1500 Polco Street, Indianapolis, Indiana 46224

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F097-7487-00060	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management Mona A. Salem, Chief Operating Officer Department of Public Works City of Indianapolis	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) the Indianapolis Environmental Resources Management Division (ERMD). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary source manufacturing metallic and non-metallic powders for surface coating and polishing applications both in house and for commercial sale.

Responsible Official:	Michael Bass
Source Address(es):	1245 Main Street, Indianapolis, Indiana 46224 1415 Main Street, Indianapolis, Indiana 46224 1555 Main Street, Indianapolis, Indiana 46224 1500 Polco Street, Indianapolis, Indiana 46224
Mailing Address:	1500 Polco Street, Indianapolis, Indiana 46224
SIC Code:	3479 and 3999
County Location:	Marion
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, PSD; Minor Source Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Location: 1245 Main Street - (Metal Surface Coating Operations)

(a) Four (4) detonation surface coating stations, identified as EU03A, EU09A, EU10A, and EU12A, each with a maximum capacity of 32.16 pounds of coating per hour, each controlled by integral baffles, identified as EU03A, EU09A, EU10A, and EU12A, exhausting at a Stack/Vent, identified as 03A, 09A, 10A, and 12A respectively installed prior to 1988, identified as follows.

(b) One (1) High Velocity Oxy Fuel coating gun, Installed in 1991, identified as EU04A, with a maximum capacity of 16.08 pounds of coating per hour, controlled by integral baffles, exhausting at Stack/Vent ID 04A.

(c) three (3) plasma surface coating stations, identified as EU03D, EU04D and EU05D, controlled by integral baffles, with a maximum capacity of 8.04 pounds of powder coating per hour, exhausting at Stack/Vent ID 03D, 04D and 05D respectively, installed in prior to 1982.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(1) Natural gas fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, identified as follows:

(a) Seven (7) Chrome Oxide Furnaces identified as Emission Unit ID EU005, EU006, EU007, EU008, EU009, EU010 and EU011 each rated at 3.0 million Btu per hour and exhausting at Stack/Vent ID's 005 through 011, respectively.

(b) Two (2) TBC Spray Dryer Furnace, identified as Emission Unit ID EU013, rated at 0.2 million Btu per hour, each controlled by baghouse identified as 001 & 002, and exhausting at Stack/Vent ID P-13A and P-13B respectively.

(c) One (1) Spherical Spray Dryer, identified as Emission Unit ID EUS47, rated at 0.46 million Btu per hour, controlled by two baghouses in series indentified as C57 or C58 exhausting at Stack/Vent ID P-58 and C56 exhausting at Stack/Vent ID S-56.

(d) Four (4) Hydrogen/Nitrogen Furnaces, identified as Emission Unit ID EUP57, rated at 0.06 million Btu per hour, exhausting through stack/vent P-57.

(e) Three (3) TBC Spray Dryer Furnaces rated at 0.23 million Btu per hour, two (2) dryers identified as EUS38 each controlled by a baghouse identified as 001 and 002, one (1) dryer identified as EUS59 controlled by a baghouse identified as 047.

(f) One (1) TBC Spray Dryer rated at 0.84 million Btu per hour, identified as EUS40, controlled by a baghouse identified as 046.

(g) One (1) elevator kiln furnace identified as Bickley, rated at 3.6 million Btu per hour.

(h) One (1) roller hearth furnace identified as Ipson, rated at 0.5 million Btu per hour

(2) Combustion source flame safety purging on startup.

(3) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(4) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6.

(5) Cleaners and solvents characterized as follows:
A) Having a vapor pressure equal to or less than 2.0 kPa; 15 mm Hg or 0.3 psi measured at 38.0 Celsius or;
B) Having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg or 0.1 psi measured at 20.0 Celsius
The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(6) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment and welding equipment.

(7) Closed loop heating and cooling systems.

(8) Solvent recycling systems with batch capacity less than or equal to 100 gallons.

(9) Activities associated with the treatment of wastewater streams with an oil or grease content of less than or equal to 1 % by volume.

(10) Any operation using aqueous solutions containing less than 1 % by weight of VOCs excluding HAPs.

(11) Water based adhesives that are less than or equal to 5 % by volume of VOCs excluding HAPs.

(12) Forced and induced draft cooling tower system not regulated under a NESHAP.

(13) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(14) Heat exchanger cleaning and repair.

(15) Process vessel degassing and cleaning to prepare for internal repairs.

(16) Paved and unpaved roads and parking lots with public access.

(17) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures or vehicles at the source where air emissions from those activities would not be associated with any production process.

(18) Equipment used to collect any material that might be released during a malfunction, process upset or spill cleanup including catch tanks, temporary liquid separators, tanks and fluid handling equipment.

(19) Blowdown for any of the following: sight glass, boiler; compressor; pumps; and cooling tower.

(20) Gasoline generators not exceeding 110 horsepower.

(21) Filter or coalescer media changeout.

(22) A laboratory as defined in 326 IAC 2-7-1(20)(C).

(23) The following units emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of any single HAP:

A) **Location: 1245 Main Street -Beryllium Machine Shop**

One (1) machining area for acid bath etching and cutting beryllium parts, with a maximum cutting capacity one (1) of every fifty (50) parts coated, less than one ton of beryllium parts are coated per year.

(B) **Location: 1245 Main Street - (Methanol Cleaning)**

Two (2) dip tanks containing methanol using ventilation hoods for de-watering, with a maximum capacity of 0.5 gallons of methanol per hour, identified as EU010S, exhausting to S/V010S.

(24) Insignificant Thresholds: Activities with emissions equal to or less than thresholds require listing only. Lead (Pb) = 0.6 ton/year or 3.29 lbs/day; Carbon Monoxide (CO) = 25 tpy; Sulfur Dioxide (SO_2) = 10 tpy; Particulate Matter (PM) = 5 tpy; Particulate Matter 10 (PM10) = 5 tpy; Nitrogen Oxides (Nox) = 10tpy; Volatile Organic Compounds (VOC) = 5 tpy, for sources using controls to comply with 326 IAC 8 or 10 tpy for all other sources.

(a) Location: 1555 Main Street - (Epoxy Kit Manufacturing)

Epoxy Kit Operations identified as Emission Unit ID EUS21. Includes the manufacture of Epoxy Kits containing acetone at maximum capacity of 9.4 pounds per hour. Installation date of 1985.

(b) Location: Powerhouse - 1500 Polco Street

One (1) insignificant Cleaver Brooks natural gas fired boiler identified as Emission Unit ID EU004 with a maximum heat input capacity of 14.6 million Btu per hour using no add on pollution control equipment and exhausting to Stack/Vent ID 004. Located in the powerhouse and manufactured and installed in 1992.

(25) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of equal to or less than 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including; deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations, identified as follows:

(a) Location: 1245 Main Street - (abrasive blasting)
Two (2) Empire Pro-Finish Glass Bead Cabinet Blasting units, identified as EU01GB and EU02GB with maximum glass bead cycling of 600 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C01GB and C02GB, exhausting at Stack/Vent ID 01GB and 02GB.

(b) Location 1245 Main Street - (abrasive blasting)
(1) Thirteen (13) aluminum oxide grit blasting unit, each with a maximum capacity shot cycling of 600 pounds per hour, identified as follows:

(a) Five (5) units identified as EU003G, EU004G, EU006G, EU009G and EU010G, controlled by one (1) integral baghouse rated at 99.97 percent efficiency, identified as C001G; and

(b) Two (2) units identified as EU001G and EU005G, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as DCEV#8 and C005G respectively; and

(c) Six (6) aluminum oxide grit blast units, identified as EU002G, EU007G EU008G, EU011G, EU012G, and EU014G each controlled by an integral baghouse, rated at 99.0 percent efficiency, identified as C002G,

C007G, C008G, C011G, C012G, and EU014G respectively.

(2) One (1) aluminum oxide grit blast unit, identified as EU013G, with maximum capacity of 200 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C013G.

(c) Location: 1415 Main Street - (abrasive blasting)
Two (2) PST steel shot peen shot blasting cabinet, installation date of 1994,

(a) Emission Unit ID EU01L, with a maximum capacity of 5.36 pounds per hour, controlled by an integral baghouse, identified as C01L, exhausting to S/V 01L

(b) Emission Unit ID EU02L with a maximum capacity of 1.48 pounds per hour, controlled by an integral baghouse, identified as C02L, exhausting to S/V 02L.

(d) Location: 1415 Main Street - (abrasive blasting)
(1) Ten grit blasting units, installed in 1994(unless otherwise indicated), with a maximum capacity of 360 pounds per hr, identified as follows

(a) Three (3) aluminum oxide grit blasting units, EU01C, EU04C, and EU05C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C01C, exhausting at Stack/Vent ID 01C.

(b) One (1) silicon carbide grit blasting units, EU02C controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C02C, exhausting at Stack/Vent ID 02C.

(c) One (1) Schmidt aluminum oxide grit blasting unit, EU03C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C03C, exhausting at Stack/Vent ID 03C.

(d) Two (2) Zero aluminum oxide grit blasting unit, EU06C and EU08C, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C06C and EU08C, exhausting at Stack/Vent ID 06C and 08C.

(e) One (1) Empire aluminum oxide grit blasting unit, Installation date of 1996, EU10C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C10C, exhausting at Stack/Vent ID 10C.

(2) Two (2) grit blasting units, installed in 1998, with a maximum capacity of cycling 600 pounds of shot per hr, identified EU11C and EU12C, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C11C and C12C, exhausting at Stack/Vent ID 11C and 12C respectively.

(e) Location: 1415 Main Street - (abrasive blasting)
EBPVD glass shot peen operation consisting of three (3) glass shot peen blasting cabinets, installation date of 1998, identified as follows:

(a) EUG1 and EUG2, with maximum capacity of 180 pounds per hour,

controlled by an integral baghouse rated at 99.99 percent efficiency, identified as C4

(b) EUG3, with maximum capacity of 60 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as CG3

(26) An emission unit or activity with potential uncontrolled emissions of particulate matter with aerodynamic diameter less than or equal to ten (10) micrometers (PM10), the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day, identified as follows:

(a) Location: 1245 Main Street - (Metal Surface Coating Operations)

(1) Eight (8) detonation surface coating stations, installed prior to 1988, each with a maximum capacity of 32.16 pounds of coating per hour, identified as follows:

(a) Six (6) Speedy Susan D guns, identified as EU01A, EU02A, EU14A, EU15A, EU16A, and EU17A, each controlled by an integral baghouse, identified as C01A, C02A, C14A, C15A, C16A, & C17 respectively, exhausting individually to Stack/Vent ID 01A, 02A, 14A, 15A, 16A & 17A respectively;

(b) Two (2) D guns, identified as EU05A and EU06A, each controlled by an integral baghouse, identified as C05A and C06A, exhausting to Stack/Vent ID 05A and 06A; and

(2) two (2) plasma surface coating stations, identified as EU06D and EU10D, each controlled by an integral baghouse, identified as C06D and C10D, each with a maximum capacity of 8.04 pounds of powder coating per hour, exhausting at Stack/Vent ID 06D and 10D, installed prior to 1982.

(b) Location: 1415 Main Street - (Plasma Coating Operations)

Eight (8) metal powder surface coating stations, installed in 1994, identified as EU01B through EU05B and EU07B through EU09B, with a maximum capacity of 16.08 pounds of metal powders per hour, each controlled by an integral baghouse, identified as C01B through CO5B and C07B through C09B respectively.

(c) Location: 1555 Main Street - Specialty Powders Manufacturing

Forty six (46) Specialty Powders Manufacturing lines, identified as Emission Units (in the table below), each controlled by an integral baghouse and HEPA filters, identified as Controls (in the table below), exhausting indoors through Stack/Vents (identified in the below).

no.	Emission Units	Controls	Stack/Vents
1	EUS1	008	S-1
2	EUS2	015	S2
3	EUS3	009	S3

4	EUP4	010	P4
5	EUS5	011	S5
6	EUS6	012	S6
7	EUS7	013	S7
8	EUP8	038	P8
9	EUP9	N/A	P9
10	EUS10	014	S10
11	EUS12	017	S12
12	EUS14	003	S14
13	EUS15	004	S-15
14	EUS16	006	S16
15	EUS17	007	S-17
16	EUS18	005	S18
17	EUS19	041	S-19
18	EUS20	040	S20
19	EUS22	021	S22
20	EUS23	024	S23
21	EUS24	026	S24
22	EUS25	022, 023, & 028	S25A, S25B, & S25C
23	EUS26	029	S26
24	EUP27	025	P27
25	EUP28	027	P28
26	EUS29	030	S29
27	EUS30	032	S30
28	EUS32	P32A & P32B	P32A & P32B
29	EUS33	040 &044	S33 & S33
30	EUS34	041	S-34
31	EUS35	042	S35
32	EUS36	043	S36

33	EUS37	048	S-37
34	EUS41	044	S-41
35	EUS42	045	S-45
36	EUS43	043	S-43
37	EUS44 A & C	C44	S-44
38	EUS45	C45	S-45
39	EUS46	C46	S-46
40	EUS47	C47, C54, C48	S-47, S-54, S-48
41	EUS49	C49	S-49
42	EUS50	C50	S-50
43	EUS51	C51	S-51
44	EUS52	C52	S-52
45	EUS53	C53	S-53
46	EUS55	C55	S-55

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, and ERMD shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

(a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and ERMD.

(b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

(c) All terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by ERMD.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

(b) The Permittee shall furnish to IDEM, OAM, and ERMD within a reasonable time, any information that IDEM, OAM, and ERMD may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

(c) Upon request, the Permittee shall also furnish to IDEM, OAM, and ERMD copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, and ERMD along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM and ERMD may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted under this permit shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was based on continuous or intermittent data;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAM, and ERMD may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, and ERMD upon request and shall be subject to review and approval by IDEM, OAM, and ERMD. IDEM, OAM, and ERMD may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM and ERMD, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

ERMD
Telephone No.: 317-327-2234
Facsimile No.: 317-327-2274

Failure to notify IDEM, OAM and ERMD, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any

emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAM and ERMD, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAM and ERMD, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within ten (10) calendar days from the date of the discovery of the deviation.

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) An emergency as defined in 326 IAC 2-7-1(12); or

(3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM and ERMD determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAM and ERMD, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM and ERMD, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM and ERMD, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms

prescribed by IDEM, OAM and ERMD and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.

(2) If IDEM, OAM and ERMD upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM and ERMD takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM and ERMD, any additional information identified as needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-1.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM and ERMD, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(e) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Construction Permit Requirement [326 IAC 2]

A modification, construction, or reconstruction shall be approved if required by and in accordance with the applicable provisions of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, and ERMD U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-8-4(6)][326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAM, and ERMD, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. The provisions of 326 IAC 9-1-2 are not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least

two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM and ERMD within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, and ERMD, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

C.11 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within ninety (90) days from the date of issuance of this permit.

The ERP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAM, and ERMD, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAM, and ERMD, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

(a) Submit:

(1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

(2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(3) A verification to IDEM, OAM, and ERMD that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

(b) Provide annual certification to IDEM, OAM, and ERMD that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4][326 IAC 2-8-5] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM and ERMD upon request and shall be subject to review and approval by IDEM, OAM, and ERMD. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6. This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

(b) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.

C.17 Monitoring Data Availability

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM and ERMD may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, and ERMD representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or ERMD makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or ERMD within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data
2700 South Belmont Avenue
Indianapolis, Indiana 46221

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope

or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activity	
Location: Powerhouse Emission Unit ID EU004	One (1) Cleaver Brooks natural gas fired boiler identified as Emission Unit ID EU004 with a maximum heat input capacity of 14.6 million Btu per hour using no add on pollution control equipment and exhausting to Stack/Vent ID 004. Located in the powerhouse and manufactured and installed in 1992. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the Particulate Matter emissions are limited to the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of particulate matter emitted per million Btu of heat input (lb/mmBtu)
Q = total source maximum operating capacity in million Btu per hour (mmBtu/hr)

Based on Q value of 14.6 mmBtu/hr, Emission Unit ID EU004 allowable PM emissions are limited to 0.5 pounds per mmBtu.

D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for EU004.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-8-5(1)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.4 New Source Performance Standard (NSPS) [40 CFR Part 60.40c Subpart Dc and 326 IAC 12]

Pursuant to 40 CFR Part 60.48c(g) Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and 326 IAC 12 (New Source Performance Standards), the permittee shall maintain a monthly record of the amount of fuel combusted. Pursuant to 326 IAC 2-8-4(3)(B), all records shall be maintained for a period of five (5) years following the date of such record.

D.1.5 Reporting Requirements

A Natural Gas Boiler Certification shall be submitted to the address listed in Condition C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

Location: 1245 Main Street Beryllium Machine Shop: **Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(A) & (C)**

One (1) machining area for acid bath etching and cutting beryllium parts, with a maximum cutting capacity one (1) of every fifty (50) parts coated, less than one ton of beryllium parts are coated per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Beryllium Emissions [326 IAC 14-3][40 CFR 61, Subpart C]

Pursuant to 326 IAC 14-3 and 40 CFR 61.32 emissions from the beryllium machining area shall not exceed 10 grams of beryllium over a 24-hour period, equivalent to 9.2×10^{-4} pounds per hour.

D.2.2 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from Beryllium Machine Shop at 1245 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for the cutting of beryllium parts.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-8-5(1)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limit specified in Condition D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.5 Visible Emissions Notations

(a) Daily visible emission notations of the stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.6 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, D.2.2. and D.2.5, the Permittee shall maintain records of daily visible emission notations of the stack exhaust.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(C)

Location: 1245 Main Street - (Methanol Cleaning)
Two (2) dip tanks containing methanol using ventilation hoods for de-watering, with a maximum capacity of 27.5 gallons per year of methanol, identified as EU010S, exhausting to S/V 010S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5(a)]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120^{O}F):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Location: 1245 Main Street - (Metal Surface Coating Operations)

(1) Four (4) detonation surface coating stations, identified as EU03A, EU09A, EU10A, and EU12A, each with a maximum capacity of 32.16 pounds of coating per hour, each controlled by integral baffles, identified as EU03A, EU09A, EU10A, and EU12A, exhausting at a Stack/Vent, identified as 03A, 09A, 10A, and 12A respectively installed prior to 1988, identified as follows.

(2) One (1) High Velocity Oxy Fuel coating gun, Installed in 1991, identified as EU04A, with a maximum capacity of 16.08 pounds of coating per hour, controlled by integral baffles, exhausting at Stack/Vent ID 04A.

(3) three (3) plasma surface coating stations, identified as EU03D, EU04D and EU05D, controlled by integral baffles, with a maximum capacity of 8.04 pounds of powder coating per hour, exhausting at Stack/Vent ID 03D, 04D and 05D respectively, installed in prior to 1982.

(4) **Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(B & C)**
Eight (8) detonation surface coating stations, installed prior to 1988, each with a maximum capacity of 32.16 pounds of coating per hour, identified as follows:

(a) Six (6) Speedy Susan D guns, identified as EU01A, EU02A, EU14A, EU15A, EU16A, and EU17A, each controlled by an integral baghouse, identified as C01A, C02A, C14A, C15A, C16A, & C17 respectively, exhausting individually to Stack/Vent ID 01A, 02A, 14A, 15A, 16A & 17A respectively;

(b) Two (2) D guns, identified as EU05A and EU06A, each controlled by an integral baghouse, identified as C05A and C06A, exhausting to Stack/Vent ID 05A and 06A; and

(5) **Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21) (B & C)**
two (2) plasma surface coating stations, identified as EU06D and EU10D, each controlled by an integral baghouse, identified as C06D and C10D, each with a maximum capacity of 8.04 pounds of powder coating per hour, exhausting at Stack/Vent ID 06D and 10D, installed prior to 1982.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Particulate Matter Less than 10 Microns (PM10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP: Permit Content), Particulate Matter Less than 10 Microns (PM10), total coating usage for EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D at 1245 Main Street shall be limited to less than 681.72 tons per twelve (12) consecutive month period.

For the purposes of determining compliance every one (1) ton of coating used in EU03D, EU04D, and EU05D will be multipled by 1.85.

Any PM10 emissions is limited such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

D.4.2 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Unit, performing Surface Coating and D-Gun Operations at 1245 Main Street, shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EU03A	8400	2.16
EU10A	9800	2.52
EU12A	10300	2.65
EU09A	9800	2.52
EU17A	4000	1.03
EU14A	5350	1.38
EU15A	5850	1.50
EU16A	9300	2.39
EU01A	11650	3.00
EU02A	10900	2.80
EU05A	8000	2.06
EU06A	11900	3.06
EU06D	2050	0.53
EU10D	2150	0.55
EU04A	8400	2.16
EU03D	17450	4.49
EU04D	13000	3.34
EU05D	15700	4.04

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

D.4.3 Hazardous Air Pollutants [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP: Permit Content);

Any single regulated HAP emissions from Surface Coating Operations at 1245 Main Street, identified as EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, or EU05D shall be limited to 139.05 tons per twelve (12) consecutive month period.

For the purposes of determining compliance every one (1) ton of coating used in EU03A, EU09A, EU10A, and EU12A will be divided by 6.33.

Any single HAP emissions is limited such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

D.4.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D and related control devices.

Compliance Determination Requirements

D.4.5 Testing Requirements [326 IAC 2-8-5(1)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

(a) To show compliance with Condition D.4.1 a stack test shall be conducted to verify the pound per pound emission rate of 0.13 pound of PM10 emission per one (1) pound of coating used. A stack test verifying the emission rate proves compliance, if the emission units are also in compliance with the usage rate in condition D.4.1. Compliance with the usage rate is necessary to limit EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D to 92.5 tons of PM10 per rolling twelve consecutive month period. If a stack test is completed and a differing emission rate is determined the stack test emission rate shall take precedence and the permit modified to incorporate the new usage rate.

The usage rate may be calculated against a pro-rated limit, greater than 92.5 ton of PM10 per rolling twelve consecutive month period. Pro-rating may occur to account for any emission units, identified in sections D.1, D.3, and D.5 through D.8 of this permit, that are not operating during the performance test.

(b) To show compliance with Condition D.4.3 a stack test shall be conducted to verify the pound per pound emission rate of 0.67 pound of single HAP emission per one (1) pound of coating used. A stack test verifying the emission rate proves compliance, if the emission units are also in compliance with the usage rate in condition D.4.3. Compliance with the usage rate is necessary to limit EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D to 9.0 tons of single HAP per rolling twelve consecutive month period. If a stack test is completed and a differing emission rate is determined the stack test emission rate shall take precedence and the permit modified to incorporate the new usage rate.

The usage rate may be calculated against a pro-rated limit, greater than 9.0 ton of single HAP per rolling twelve consecutive month period. Pro-rating may occur to account for any emission units, identified in sections D.1 and D.3 of this permit, that are not operating during the performance test.

(c) If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.4.1, D.4.2 and/or D.4.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.4.6 HAP & PM10 Emissions

Compliance with the powder coating usage limitations contained in Conditions D.4.1 and D.4.3 for Emission Units EU03A, EU04A, EU09A, EU10A, EU03D, EU04D, and EU05D at 1245 Main Street shall be determined by record keeping powder coating usage and HAP content. IDEM, OAM, and ERMD reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.4.7 Particulate Matter (PM)

The baghouses or baffles for PM control shall be in operation at all times when Emission Units are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.4.8 Visible Emissions Notations

(a) Daily visible emission notations of EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D baffle stack exhaust(s) shall be performed during normal daylight operations when venting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.4.9 Baffle Monitoring

(a) To monitor the performance of EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. In addition, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.4.10 Baffle failure Detection

In the event that baffle failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.11 Record Keeping Requirements

(a) To document compliance with Conditions D.4.1, D.4.3, and D.4.6 the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP and PM10 emission limits established in Condition D.4.1 and/or D.4.3.

(1) The amount of each powder coating used and percent HAPs content found in each coating. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) The weight of PM10 and HAPs emitted for each compliance period.

(b) To document compliance with Condition D.4.8, the Permittee shall maintain records of daily visible emission notations from stack vents IDs 01A, 02A, 05A, 06A, 14A, 15A, 16A, 17A, 06D, and 10D stack exhaust.

(c) To document compliance with Condition D.4.9, for emission units EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D, the Permittee shall maintain a log of monthly overspray observations, weekly inspections, and those additional inspections prescribed by the Preventative Maintenance Plan.

(d) All records shall be maintained in accordance with Section C.18 - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1 and D.4.3 shall be submitted to the address(es) listed in Section C.19 - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activity defined by 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(G)(xxiii) or (21)(B)

Location: 1245 Main Street - (abrasive blasting)
Two (2) Empire Pro-Finish Glass Bead Cabinet Blasting units, identified as EU01GB and EU02GB with maximum glass bead cycling of 600 pounds per hour, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C01GB and C02GB, exhausting at Stack/Vent ID 01GB and 02GB.

Location 1245 Main Street - (abrasive blasting)
(1) Thirteen (13) aluminum oxide grit blasting units, each with a maximum capacity of 600 pounds per hour, identified as follows:

(a) Five (5) units identified as EU003G, EU004G, EU006G, EU009G and EU010G, controlled by one (1) integral baghouse rated at 99.97 percent efficiency, identified as C001G; and

(b) Two (2) units identified as EU001G and EU005G, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as DCEV#8 and C005G respectively; and

(c) Six (6) aluminum oxide grit blast units, identified as EU002G, EU007G EU008G, EU011G, EU012G, and EU014G each controlled by an integral baghouse, rated at 99.0 percent efficiency, identified as C002G, C007G, C008G, C011G, C012G, and EU014G respectively.

(2) One (1) aluminum oxide grit blast unit, identified as EU013G, with maximum capacity of 200 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C013G.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Units performing Mechanical and Grit Blasting Operations at 1245 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf equivalent (lb/hr)
EU01GB	4000	1.03
EU02GB	4000	1.03
EU003G	4000	1.03
EU004G	4968	1.28
EU006G	4968	1.28
EU009G	4968	1.28
EU0010G	4968	1.28
EU001G	4000	1.03

EU005G	300	0.08
Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf equivalent (lb/hr)
EU002G	300	0.08
EU007G	300	0.08
EU008G	600	0.15
EU011G	1500	0.39
EU012G	300	0.08
EU013G	1000	0.26
EU014G	600	0.15

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

Compliance Determination Requirements

D.5.2 Testing Requirements [326 IAC 2-8-5(1)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.5.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.5.3 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when Emission Units are in operation.

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(B) & (C)

Location: 1415 Main Street - (Plasma Coating Operations)
Eight (8) metal powder surface coating stations, installed in 1994, identified as EU01B through EU05B and EU07B through EU09B, with a maximum capacity of 16.08 pounds of metal powders per hour, each controlled by an integral baghouse, identified as C01B through CO5B and C07B through C09B respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.6.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Unit ID performing Plasma Coating Operations at 1415 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EU01B	3000	0.77
EU02B	3000	0.77
EU03B	3000	0.77
EU07B	3000	0.77
EU08B	3000	0.77
EU09B	3000	0.77
EU04B	3000	0.77
EU05B	3000	0.77

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

Compliance Determination Requirements

D.6.2 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.6.1, D.6.2 and/or D.6.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.6.3 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when Emission Units are in operation.

SECTION D.7 FACILITY OPERATION CONDITION

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(G)(xxii)

Location: 1415 Main Street - (abrasive blasting)
Two (2) PST steel shot peen shot blasting cabinet, installation date of 1994,

(a) Emission Unit ID EU01L, with a maximum capacity of 5.36 pounds per hour, controlled by an integral baghouse, identified as C01L, exhausting to S/V 01L

(b) Emission Unit ID EU02L with a maximum capacity of 1.48 pounds per hour, controlled by an integral baghouse, identified as C02L, exhausting to S/V 02L.

Location: 1415 Main Street - (abrasive blasting)
(2) Ten grit blasting units, installed in 1994(unless otherwise indicated), with a maximum capacity of 360 pounds per hr, identified as follows

(a) Three (3) aluminum oxide grit blasting units, EU01C, EU04C, and EU05C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C01C, exhausting at Stack/Vent ID 01C.

(b) One (1) silicon carbide grit blasting units, EU02C controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C02C, exhausting at Stack/Vent ID 02C.

(c) One (1) Schmidt aluminum oxide grit blasting unit, EU03C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C03C, exhausting at Stack/Vent ID 03C.

(d) Two (2) Zero aluminum oxide grit blasting unit, EU06C and EU08C, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C06C and EU08C, exhausting at Stack/Vent ID 06C and 08C.

(e) One (1) Empire aluminum oxide grit blasting unit, Installation date of 1996, EU10C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C10C, exhausting at Stack/Vent ID 10C.

(3) Two (2) grit blasting units, installed in 1998, with a maximum capacity of 600 pounds per hr, identified EU11C and EU12C, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C11C and C12C, exhausting at Stack/Vent ID 11C and 12C respectively.

Location: 1415 Main Street - (abrasive blasting)
(4) EBPVD glass shot peen operation consisting of Three (3) glass shot peen blasting cabinets, installation date of 1998,identified as follows:

(a) EUG1 and EUG2, with maximum capacity of 180 pounds per hour, controlled by an integral baghouse rated at 99.99 percent efficiency, identified as C4

(b) EUG3, with maximum capacity of 60 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as CG3

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.7.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Units performing Shot Peen and Grit Blasting Operations at 1415 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Units	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EU01L	700	0.18
EU02L	700	0.18
EU01C	3000	0.77
EU02C	1600	0.41
EU03C	2200	0.57
EU04C	4000	1.03
EU05C	4000	1.03
EU06C	600	0.15
EU08C	600	0.15
EU10C	600	0.15
EUG1	800	0.21
EUG2	800	0.21
EUG3	50	0.01
EU11C	4000	1.03
EU12C	4000	1.03

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

Compliance Determination Requirements

D.7.2 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.7.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.7.3 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when Emission Units are in operation.

SECTION D.8 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(B) & (C)

Location: 1555 Main Street - Specialty Powders Manufacturing

Forrty six (46) Specialty Powders Manufacturing lines, identified as Emission Units (in the table below), each controlled by an integral baghouse and HEPA filters, identified as Controls (in the table below), exhausting indoors through Stack/Vents (identified in the below)

no.	Emission Units	Controls	Stack/Vents
1	EUS1	008	S-1
2	EUS2	015	S2
3	EUS3	009	P3
4	EUP4	010	S3
5	EUS5	011	S4A
6	EUS6	012	S4B
7	EUS7	013	S5
8	EUP8	038	P6
9	EUP9	N/A	S7
10	EUS10	014	S8A
11	EUS12	017	S8B
12	EUS14	003	S10
13	EUS15	004	S15A
14	EUS16	006	S15B
15	EUS17	007	S15E
16	EUS18	005	S18
17	EUS19	041	S19
18	EUS20	040	S20
19	EUS22	021	S22
20	EUS23	024	S23
21	EUS24	026	S24
22	EUS25	022, 023, & 028	S25A, S25B, & S25C
23	EUS26	029	S26
24	EUP27	025	P27
25	EUP28	027	P28
26	EUS29	030	S29

27	EUS30	032	S30
28	EUP32	P32A & P32B	P32A & P32B
29	EUS33	040 & 044	S33 & S33
30	EUS34	041	S-34
31	EUS35	042	S35
32	EUS36	043	S36
33	EUS37	048	S-37
34	EUS41	044	S-41
35	EUS42	045	S-45
36	EUS43	043	S-43
37	EUS44 A& C	C44	S-44
38	EUS45	C45	S-45
39	EUS46	C46	S-46
40	EUS47	C47, C54, C48	S47, S-54, S-48
41	EUS49	C49	S-49
42	EUS50	C50	S-50
43	EUS51	C51	S-51
44	EUS52	C52	S-52
45	EUS53	C53	S-53
46	EUS55	C55	S-55
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)			

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.8.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Unit operated in relation to Specialty Powders Manufacturing at 1555 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EUS1	4000	1.03
EUS2	4000	1.03
EUS3	900	0.23
EUP4	4000	1.03
Emission Units	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EUS5	4000	1.03

EUS6	500	0.13
EUS7	4000	1.03
EUP8	600	0.15
EUS10	4000	1.03
EUS12	2000	0.51
EUS14	4000	1.03
EUS15	4000	1.03
EUS16	4000	1.03
EUS17	4000	1.03
EUS18	4000	1.03
EUS19	4000	1.03
EUS20	4000	1.03
EUS22	1800	0.46
EUS23	3000	0.77
EUS24	3500	0.90
EUS25	2750	0.71
EUS25	3500	0.90
EUS25	2000	0.51
EUS26	2000	0.51
EUP27	2000	0.51
EUP28	4000	1.03
EUS29	2000	0.51
EUS30	2000	0.51
EUP32A	750	0.19
EUP32B	750	0.19
EUS33	3000	0.77
EUS33	2500	0.64
EUS34	750	0.19
EUS35	1500	0.39
EUS36	3000	0.77
EUS37	**10,000**	**0.25**
EUS41	**4000**	**1.03**
EUS42	**4000**	**1.03**
EUS43	**4000**	**1.03**
EUS44 A & C	**4000 each**	**1.03 each**
EUS45	4000	1.03
EUS46	1525	0.39
EUS47	1525 each	0.39 each
EUS49	1525	0.39
EUS50	1525	0.39
EUS51	1525	0.39
EUS52	1525	0.39
Emission Units	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EUS53	1525	0.39

EUS55	1525	0.39

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

Compliance Determination Requirements

D.8.2 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.8.1, D.8.2 and/or D.8.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.8.3 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when Emission Units are in operation.

SECTION D.9 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activity defined 326 IAC 2-8-1 and 326 IAC 2-7-1(21)(E)

Location: 1500 Polco Street - R & D Lab

(a) ten (10) powder supplied metal surface coaters 01A, 02A - 04A and JV 5000, 01B - 06B
(b) eight (8) grit blasting cabinets, identified as Basters 1 - 8, controlled by a dust collector venting to the atmosphere

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.9.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from the research and development lab at 1500 Polco Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

Compliance Determination Requirements

D.9.2 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.9.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.9.3 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when Emission Units are in operation and exhausting to the outside atmosphere.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Praxair Surface Technologies
Source Address: 1415 Main Street, Indianapolis, Indiana 46224
Mailing Address: 1500 Polco Street, Indianapolis, Indiana 46224
FESOP No.: F097-7487-00060

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

and

INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA

2700 S. Belmont Ave.
Indianapolis Indiana 46221
Phone: 317-327-2234
Fax: 317-327-2274

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: Praxair Surface Technologies
Source Address: 1415 Main Street, Indianapolis, Indiana 46224
Mailing Address: 1500 Polco Street, Indianapolis, Indiana 46224
FESOP Permit No.: F097-7487-00060

This form consists of 2 pages **Page 1 of 2**

Check either No. 1 or No.2
9 1. This is an emergency as defined in 326 IAC 2-7-1(12) ℂThe Permittee must notify the ERMD (317-327-2234) and OAM (1-800-451-6027 or 317-233-5674, ask for Compliance Section), within four (**4**) business hours; and ℂThe Permittee must submit notice in writing or by facsimile to ERMD and OAM within two (**2**) days, and follow the other requirements of 326 IAC 2-7-16
9 2. This is a deviation, reportable per 326 IAC 2-8-4(3)(C) ℂThe Permittee must submit notice in writing within ten (**10**) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Praxair Surface Technologies
Source Address: 1500 Polco Street, Indianapolis, Indiana 46224
Mailing Address: 1500 Polco Street, Indianapolis, Indiana 46224
FESOP Permit No.: F097-7487-00060

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Report period
Beginning: _____
Ending: _____

Boiler Affected	Alternate Fuel	Days burning alternate fuel From	To

(can omit boiler affected if only one gas boiler at this plant)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA

FESOP Quarterly Report

Source Name: Praxair Surface Technologies
Source Address: 1415 Main Street, Indianapolis, Indiana 46224
Mailing Address: 1500 Polco Street, Indianapolis, Indiana 46224
FESOP No.: F097-7487-00060
Facility: 1245 Main St., EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D
Parameter: PM10
Limit: 681.72 ton throughput per twelve (12) consecutive month period

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 3	Column 4	Column 1 + Column 3 + Column 4
	This Month	This Month	This Month	Previous 11 Months	12 Month Total
	PM10 (tons) EU03A, 04A, 09A, 10A, & 12A	usage (ton per month)EU03D, 04D, & 05D	EU03D, 04D, & 05D Equivalency: (multiply by 1.85)	PM10 (tons)	PM10 (tons)
Month					
Month					
Month					

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA

FESOP Quarterly Report

Source Name: Praxair Surface Technologies
Source Address: 1415 Main Street, Indianapolis, Indiana 46224
Mailing Address: 1500 Polco Street, Indianapolis, Indiana 46224
FESOP No.: F097-7487-00060
Facility: 1245 Main St., EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D
Parameter: Single HAPs
Limit: 139.05 ton throughput per twelve (12) consecutive month period

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 3	Column 4	Column 1 + Column 3 + Column 4
	This Month	This Month	This Month	Previous 11 Months	12 Month Total
	PM - HAP (tons) Cr EU03D, 04D, & 05D	Usage (ton): Cr EU03A, 09A, 10A, & 12A	EU03D, 04D, & 05D Equivalency: divide Column 2 by 6.33	PM - HAP Cr (tons)	PM - HAP Cr (tons)
Month					
Month					
Month					

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) QUARTERLY COMPLIANCE REPORT

Source Name: Praxair Surface Technologies
Source Address: 1415 Main Street, Indianapolis, Indiana 46224
Mailing Address: 1500 Polco Street, Indianapolis, Indiana 46224
FESOP No.: F097-7487-00060

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify zero in the column marked "No Deviations".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (eg. Permit Condition D.1.3)	**Number of Deviations**	**Date of each Deviations**

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Attachment A

The following state rules have been adopted by reference by the Indianapolis Air Pollutant Control Board and are enforceable by Indianapolis Environmental Resources Management Division (ERMD) using local enforcement procedures.

(1) 326 IAC 1-1-1 through 1-1-3 and 1-1-5;
(2) 326 IAC 1-2-1 through 1-2-91 (In addition, the IAPCB has adopted several local definitions);
(3) 326 IAC 1-3-1 through 1-3-4;
(4) 326 IAC 1-4-1 (The IAPCB added to the adoption by reference a citation to 61 FR 58482 (November 15, 1996));
(5) 326 IAC 1-5-1 through 1-5-5;
(6) 326 IAC 1-6-1 through 1-6-6;
(7) 326 IAC 1-7-1 through 1-7-5
(8) 326 IAC 2-3-1 through 2-3-5;
(9) 326 IAC 2-4-1 through 2-4-6;
(10) 326 IAC 2-6-1 through 2-6-4;
(11) 326 IAC 2-7-1 through 2-7-18, 2-7-20 through 2-7-25;
(12) 326 IAC 2-8-1 through 2-8-15, 2-8-17 through 2-8-10;
(13) 326 IAC 2-9-1 through 2-9-14;
(14) 326 IAC 2-10-1 through 2-10-5 (The IAPCB adoption adds the language “state or local” immediately after the word “federal” in 326 IAC 2-10-1);
(15) 326 IAC 2-11-1, 2-11-3 and 2-11-4 (The IAPCB adoption adds the language “federal, state or local” immediately after the word “by” in 326 IAC 2-11-1);
(16) 326 IAC 3-1.1-1 through 3-1.1-5;
(17) 326 IAC 3-2.1-1 through 3-2.1-5;
(18) 326 IAC 3-3-1 through 3-3-5;
(19) 326 IAC 4-2-1 through 4-2-2;
(20) 326 IAC 5-1-1 (a), (b) and c) (5), 5-1-2 (1), (2)(A), (2)c) (4), 5-1-3 through 5-1-5, 5-1-7;
(21) 326 IAC 7-1.1-1 and 7-1.1-2;
(22) 326 IAC 7-2-1;
(23) 326 IAC 7-3-1 and 7-3-2;
(24) 326 IAC 7-4-2(28) through (31) (Instead of adopting by reference 7-4-2(1) through (27), the IAPCB regulation substitutes the same requirements listed in a format in which the companies are alphabetized and emission points known to no longer exist have been deleted);
(25) 326 IAC 8-1-0.5 except (b), 8-1-1 through 8-1-2, 8-1-3 except c), (g) and (i), 8-1-5 through 8-1-12;
(26) 326 IAC 8-2-1 through 8-2-12 (The IAPCB adoption by reference of 8-2- 5 adds additional language specific to Zimmer Paper Products, Incorporated as subpart c);
(27) 326 IAC 8-3-1 through 8-3-7;
(28) 326 IAC 8-4-1 through 8-4-5, 8-4-6 (a)(6), (a)(8) and (a)(14) and 8-4-6(b)(1), (b)(3) and 8-4-6c) (In place of 8-4-6(b)(2), which was not adopted, the IAPCB adopted language requiring a pressure relief valve set to release at no less than four and eight-tenths (4.8) Kilo Pascals (seven-tenths (0.7) pounds per square inch)), 8-4-7 except (e), 8-4-8 and 8-4-9;
(29) 326 IAC 8-5-1 through 8-5-4, 8-5-5 except (a)(3) and (d)(3);
(30) 326 IAC 8-6-1 and 8-6-2;
(31) 326 IAC 9-1-1 and 9-1-2;
(32) 326 IAC 11-1-1 through 11-1-2;
(33) 326 IAC 11-2-1 through 11-2-3;
(34) 326 IAC 11-3-1 through 11-3-6;
(35) 326 IAC 14-1-1 through 14-1-4;

Attachment A continued

(36) 326 IAC 14-2-1 except 40 CFR 61.145;
(37) 326 IAC 14-3-1;
(38) 326 IAC 14-4-1;
(39) 326 IAC 14-5-1;
(40) 326 IAC 14-6-1;
(41) 326 IAC 14-7-1;
(42) 326 IAC 14-8-1 through 14-8-5;
(43) 326 IAC 15-1-1, 15-1-2(a)(1), (a)(2) and (a)(8), 15-1-3 and 15-1-4;
(44) 326 IAC 20-1-1 through 20-1-4 (In 20-1-3(b)(2) the adoption states that “permitting authority” means the commissioner of IDEM or the administrator of ERMD, whichever is applicable);
(45) 326 IAC 20-2-1;
(46) 326 IAC 20-3-1;
(47) 326 IAC 20-4-1;
(48) 326 IAC 20-5-1;
(49) 326 IAC 20-6-1;
(50) 326 IAC 20-7-1;
(51) 326 IAC 20-8-1;
(52) 326 IAC 20-9-1;
(53) 326 IAC 20-14-1;
(54) 326 IAC 20-15-1;
(55) 326 IAC 20-16-1;
(56) 326 IAC 20-17-1;
(57) 326 IAC 20-18-1;
(58) 326 IAC 20-19-1;
(59) 326 IAC 20-20-1;
(60) 326 IAC 20-21-1;
(61) 326 IAC 21-1-1 (The adoption states that “or the administrator of ERMD” is added in (b));
(62) 326 IAC 22-1-1 (The adoption states that “or the administrator of ERMD” is added in (b)).

Indiana Department of Environmental Management
Office of Air Management and
City of Indianapolis
Environmental Resource Management Division

Addendum to the
Technical Support Document for a Federally Enforceable State Operating Permit (FESOP)

Source Name:	**Praxair Surface Technologies**
Source Location(s):	**1245 Main Street, Indianapolis, Indiana 46224**
	1415 Main Street, Indianapolis, Indiana 46224
	1555 Main Street, Indianapolis, Indiana 46224
	1500 Polco Street, Indianapolis, Indiana 46224
Mailing Address:	**1500 Polco Street, Indianapolis, Indiana 46224**
County:	**Marion**
SIC Code:	**3479 and 3999**
Operation Permit No.:	**F097-7487-00060**
Permit Reviewer:	**Monica Dick**

On January 31, 2000, the Office of Air Management (OAM) and Environment Resource Management Division had a notice published in the Indianapolis Star and News, Indianapolis, Indiana, stating that Praxair Surface Technologies had applied for a Federally Enforceable State Operating Permit (FESOP) to manufacture metallic and non-metallic powders for surface coating and polishing applications both in house and for commercial sale. The notice also stated that OAM and ERMD proposed to issue a permit for this operation and provided information on how the public should review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

The following change to the draft FESOP will be made. The TSD will remain as it originally appeared when published. OAM and ERMD prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the permit has been published are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision (bolded language has been added, the language with a line through it has been deleted).

Change 1:

A.3 and the TSD: Insignificant Activities
The following has been incorporated into the permit and should have been reflected in the TSD the changes are based on exemption E 097-12272-00060 issued June 5, 2000.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(1) Natural gas fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, identified as follows:

(a) Seven (7) Chrome Oxide Furnaces identified as Emission Unit ID EU005, EU006, EU007, EU008, EU009, EU010 and EU011 each rated at 3.0 million Btu per hour

and exhausting at Stack/Vent ID's 005 through 011, respectively.

(b) Two (2) TBC Spray Dryer Furnace, identified as Emission Unit ID EU013, rated at 0.2 million Btu per hour, each controlled by baghouse identified as 001 & 002, and exhausting at Stack/Vent ID P-13A and P-13B respectively.

(c) One (1) Spherical Spray Dryer, identified as Emission Unit ID EUS47, rated at 0.46 million Btu per hour, controlled by two baghouses in series indentified as C57 or C58 exhausting at Stack/Vent ID P-58 and C56 exhausting at Stack/Vent ID S-56.

(d) Four (4) Hydrogen/Nitrogen Furnaces, identified as Emission Unit ID EUP57, rated at 0.06 million Btu per hour, exhausting through stack/vent P-57.

(e) Three (3) TBC Spray Dryer Furnaces rated at 0.23 million Btu per hour, two (2) dryers identified as EUS38 each controlled by a baghouse identified as 001 and 002, one (1) dryer identified as EUS59 controlled by a baghouse identified as 047.

(f) One (1) TBC Spray Dryer rated at 0.84 million Btu per hour, identified as EUS40, controlled by a baghouse identified as 046.

(g) One (1) elevator kiln furnace identified as Bickley, rated at 3.6 million Btu per hour.

(h) One (1) roller hearth furnace identified as Ipson, rated at 0.5 million Btu per hour

Change 2:

A Preventative Maintenance Plan (PMP) should have been listed in the permit, for EU004 and the beryllium cutting operation, in sections one and two. The criteria for requiring a PMP are as follows:

1. a NSPS or NESHAP applies; or
2. the unit has a control device and allowable emissions exceed 10 lb/hr; or
3. the unit does not have controls and actual emissions exceed 25 tons per year; or
4. the unit would have been subject to an applicable requirement if there was not a condition limiting the PTE.

Since, 40 CFR Part 60.48c(g), Subpart Dc applies to EU004 and 40 CFR 61, Subpart C applies to the beryllium cutting operation, a PMP is required. The following conditions were added to sections one and two and the subsequent conditions were renumbered.

D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for EU004.

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for the cutting of berylium parts.

Change 3:

Condition D.4.1 should have read as follows: The TSD lists the same text as the condition below, under the section State Rule Applicability - Individual Facilities, Article 2 FESOP less than 100 ton/year. The text, which is incorporated into the TSD, should have reflected the same correction. In addition, a change in the amount of coating usage was made to allow for an extra 0.5 ton PM10 emissions per year from the insignificant emission units. These changes will only be shown in this document the TSD will remain as published.

D.4.1 Particulate Matter Less than 10 Microns (PM10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP: Permit Content), Particulate Matter Less than 10 Microns (PM10), **total coating usage for** ~~emissions~~ EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D at 1245 Main Street shall be limited to less than~~ 100 ton PM emission per 12 consecutive month period minus all remaining emission units, which is equal to less than 92.5 tons of Particulate Matter less than 10 Microns per rolling twelve (12) consecutive month period or a throughput of 685.43~~ **681.72** tons per twelve (12) consecutive month period.

For the purposes of determining compliance every one (1) ton of ~~throughput~~ **coating used** in ~~EU03A, EU04A, EU09A, EU10A, and EU12A~~ **EU03D, EU04D, and EU05D** will be **multipled by** ~~equivalent to~~ 1.85 ~~tons per twelve (12) consecutive month period of throughput~~ **coating used** ~~in EU03D, EU04D, and EU05D. This limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable~~.

Any PM10 emission is limited such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

Calculations changes from TSD, to show new coating usage limit.

FESOP emission limits (t/yr):
Specialty Powders PM10 emissions: 4.38
1245 Main Street Abrasive blasting PM10 emissions: 0.97
1415 Main Street Abrasive blasting PM10 emissions: 0.78
1245 Main Surface Coating PM10 emissions: 99.76
1415 Main Surface Coating PM10 emissions: 0.00
Methanol, Berylium, and Acetone PM10 emissions: 0.08
Power house PM10 emissions: ~~1.3~~ **1.40**
Limit:
Total: ~~107.27t/yr~~ **107.37** - 99.76t/yr(EU03A, 04A, 10A, 12A, 09A, EU03D, 04D, & 05D) = ~~7.5t/yr~~ **7.6 ton/year**
Potential emissions of insignificant activities is less than 8 ton per year
FESOP = 100t/yr - ~~7.5t/yr~~ **8.0 ton/yr**~~(potential emissions from all EU other than the afore listed)~~ = ~~**92.5t/yr**~~ **92 ton / year limit for EU03A, 04A, 10A, 12A, 09A, EU03D, 04D, & 05D**

Conversion of emission limit from emissions in t/yr to throughput in t/yr:
EU03A, 10A, 12A, 09A =
32.16#/hr throughput * 8760hr/yr * t/2000# = 140.86t/yr throughput
17.36#/hr collected @ 80% eff. * 8760hr/yr * t/2000# = 76.04t/yr collected
(76.04t/yr collected / 0.8 control eff.) - 76.04t/yr= 19.01t PM emissions/yr (potential)
140.86t throughput/yr / 19.01t PM emissions/yr = 7.41t/yr throughput per 1t PM emission/yr
~~7.41 **t** /yr throughput * 92.5 t PM emission allowable/yr = **685.43 t /year throughput allowable** 1t PM emission/yr~~
7.41 ton throughput / year * 92 ton PM emission limit / year = 681.72 ton throughput per ton PM emission

Change 4:

The following equivalencies were added to the 326 IAC 6-1-2 PM limit conditions under sections D.4 through D.8.

D.4.2 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Unit, performing Surface Coating and D-Gun Operations at 1245 Main Street, shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EU03A	**8400**	**2.16**
EU10A	**9800**	**2.52**
EU12A	**10300**	**2.65**
EU09A	**9800**	**2.52**
EU17A	**4000**	**1.03**
EU14A	**5350**	**1.38**
EU15A	**5850**	**1.50**
EU16A	**9300**	**2.39**
EU01A	**11650**	**3.00**
EU02A	**10900**	**2.80**
EU05A	**8000**	**2.06**
EU06A	**11900**	**3.06**
EU06D	**2050**	**0.53**
EU10D	**2150**	**0.55**
EU04A	**8400**	**2.16**
EU03D	**17450**	**4.49**
EU04D	**13000**	**3.34**
EU05D	**15700**	**4.04**

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

D.5.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Units performing Mechanical and Grit Blasting Operations at 1245 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf equivalent (lb/hr)
EU01GB	**4000**	**1.03**
EU02GB	**4000**	**1.03**
EU003G	**4000**	**1.03**

EU004G	**4968**	**1.28**
EU006G	**4968**	**1.28**
EU009G	**4968**	**1.28**
EU0010G	**4968**	**1.28**
DCE#8	**4000**	**1.03**
EU005G	**300**	**0.08**
EU002G	**300**	**0.08**
EU007G	**300**	**0.08**
EU008G	**600**	**0.15**
EU011G	**1500**	**0.39**
EU012G	**300**	**0.08**
EU013G	**1000**	**0.26**
EU014G	**600**	**0.15**

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

D.6.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Unit ID performing Plasma Coating Operations at 1415 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

EU01B	**3000**	**0.77**
EU02B	**3000**	**0.77**
EU03B	**3000**	**0.77**
EU07B	**3000**	**0.77**
EU08B	**3000**	**0.77**
EU09B	**3000**	**0.77**
EU04B	**3000**	**0.77**
EU05B	**3000**	**0.77**

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

D.7.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Units performing Shot Peen and Grit Blasting Operations at 1415 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Units	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EU01L	**700**	**0.18**
EU02L	**700**	**0.18**

EU01C	**3000**	**0.77**
EU02C	**1600**	**0.41**
EU03C	**2200**	**0.57**
EU04C	**4000**	**1.03**
EU05C	**4000**	**1.03**
EU06C	**600**	**0.15**
EU08C	**600**	**0.15**
EU10C	**600**	**0.15**
EUG1	**800**	**0.21**
EUG2	**800**	**0.21**
EUG3	**50**	**0.01**
EU11C	**4000**	**1.03**
EU12C	**4000**	**1.03**

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

D.8.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations; Specified), Particulate Matter (PM) emissions from each Emission Unit operated in relation to Specialty Powders Manufacturing at 1555 Main Street shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

The equivalent pound per hour limits are listed in the table below, as follows:

Emission Unit	Air Flow Rate (cf/min)	0.03 gr/dscf Equivalent (lb/hr)
EUS1	**4000**	**1.03**
EUS2	**4000**	**1.03**
EUS3	**900**	**0.23**
EUP4	**4000**	**1.03**
EUS5	**4000**	**1.03**
EUS6	**500**	**0.13**
EUS7	**4000**	**1.03**
EUP8	**600**	**0.15**
EUS10	**4000**	**1.03**
EUS12	**2000**	**0.51**
EUS14	**4000**	**1.03**
EUS15	**4000**	**1.03**
EUS16	**4000**	**1.03**
EUS17	**4000**	**1.03**
EUS18	**4000**	**1.03**
EUS19	**4000**	**1.03**
EUS20	**4000**	**1.03**

EUS22	**1800**	**0.46**
EUS23	**3000**	**0.77**
EUS24	**3500**	**0.90**
EUS25	**2750**	**0.71**
EUS25	**3500**	**0.90**
EUS25	**2000**	**0.51**
EUS26	**2000**	**0.51**
EUP27	**2000**	**0.51**
EUP28	**4000**	**1.03**
EUS29	**2000**	**0.51**
EUS30	**2000**	**0.51**
EUP32A	**750**	**0.19**
EUP32B	**750**	**0.19**
EUS33	**3000**	**0.77**
EUS33	**2500**	**0.64**
EUS34	**750**	**0.19**
EUS35	**1500**	**0.39**
EUS36	**3000**	**0.77**
EUS37	**10,000**	**0.25**
EUS41	**4000**	**1.03**
EUS42	**4000**	**1.03**
EUS43	**4000**	**1.03**
EUS44 A & C	**4000 each**	**1.03 each**
EUS45	**4000**	**1.03**
EUS46	**1525**	**0.39**
EUS47	**1525 each**	**0.39**
EUS49	**1525**	**0.39**
EUS50	**1525**	**0.39**
EUS51	**1525**	**0.39**
EUS52	**1525**	**0.39**
EUS53	**1525**	**0.39**
EUS55	**1525**	**0.39**

The pound per hour limits are applicable when the air flow rate of the control equipment is equal to the air flow rate listed above.

Change 5:

Condition D.4.3 should have read as follows: The TSD lists the same text as the condition below, under the section State Rule Applicability - Individual Facilities, Article 2 FESOP less than 100 ton/year. The text, which is incorporated into the TSD, should have reflected the same correction. However, The TSD will remain as published.

D.4.3 Hazardous Air Pollutants [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP: Permit Content);

Any single regulated HAP emissions from Surface Coating Operations at 1245 Main Street, identified as EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, or EU05D shall ~~be less than 10 ton single HAP emission per 12 consecutive month period minus all remaining emission units, which is equal to 9 tons per rolling twelve (12) consecutive month period or a throughput of~~ **be limited to** 139.05 tons per twelve (12) consecutive month period.

For the purposes of determining compliance every one (1) ton of ~~throughput~~ **coating used** in ~~EU03D, EU04D, and EU05D~~ **EU03A, EU09A, EU10A, and EU12A** will be ~~equivalent to~~ **divided by** 6.33 ~~tons of throughput in EU03A, EU09A, EU10A, and EU12A~~.

Any single HAP emission is limited such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

Change 6:

The changes made to Condition D.4.5 were to better explain stack test parameters for the 92.5 ton per year limit established in Conditions D.4.1 and D.4.3.

D.4.5 Testing Requirements [326 IAC 2-8-5(1)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

(a) To show compliance with Condition D.4.1 a stack test shall be conducted to verify the pound per pound emission rate of 0.13 pound of PM10 emission per one (1) pound of coating used. A stack test verifying the emission rate proves compliance, if the emission units are also in compliance with the usage rate in condition D.4.1. Compliance with the usage rate is necessary to limit EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D to 92.5 tons of PM10 per rolling twelve consecutive month period. If a stack test is completed and a differing emission rate is determined the stack test emission rate shall take precedence and the permit modified to incorporate the new usage rate.

The usage rate may be calculated against a pro-rated limit, greater than 92.5 ton of PM10 per rolling twelve consecutive month period. Pro-rating may occur to account for any emission units, identified in sections D.5 through D.8 of this permit, that are not operating during the performance test.

(b) To show compliance with Condition D.4.3 a stack test shall be conducted to verify the pound per pound emission rate of 0.67 pound of single HAP emission per one (1) pound of coating used. A stack test verifying the emission rate proves compliance, if the emission units are also in compliance with the usage rate in condition D.4.3. Compliance with the usage rate is necessary to limit EU03A,

EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D to 9.0 tons of single HAP per rolling twelve consecutive month period. If a stack test is completed and a differing emission rate is determined the stack test emission rate shall take precedence and the permit modified to incorporate the new usage rate.

The usage rate may be calculated against a pro-rated limit, greater than 92.5 ton of PM10 per rolling twelve consecutive month period. Pro-rating may occur to account for any emission units, identified in sections D.5 through D.8 of this permit, that are not operating during the performance test.

(c) If testing is required by IDEM or ERMD, compliance with the limits specified in Condition D.4.1, D.4.2 and/or D.4.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Change 7:

The TSD will not change. However, the TSD should have read as follows:

Source Definition

This metallic powder manufacturing and surface coating operation consists of four (4) separate buildings and/or addresses:

(1) Building 1 is located at 1245 Main Street, Indianapolis, Indiana 46224.
(2) Building 2 is located at 1415 Main Street, Indianapolis, Indiana 46224.
(3) Building 3 is located at 1555 Main Street, Indianapolis, Indiana 46224.
(4) Building 4 is located at 1500 Polco Street, Indianapolis, Indiana 46224

The four (4) buildings are contiguous or adjacent **(located on the same property)** and have the same owner. Operations are classified under two (2) separate Standard Industrial Classification Codes (SIC). Although, SIC codes are different all three buildings provide various support relationships. Since the operations are located on contiguous or adjacent properties, owned by the same company, and provide support relationship, they will be considered one (1) source.

Change 8:

The TSD will not change. However, the TSD should have read as follows:

Air Pollution Control Justification as an Integral Part of the Process

Buildings 1 & 2: located at 1245 Main Street & 1415 Main Street, Indianapolis, Indiana 46224.

(a) The company has submitted the following justification such that the air pollution control equipment (baghouses, baffles, and HEPA filters following all baghouses) be considered as an integral part of the surface coating process:

The control equipment has an overwhelming positive net economic effect - control equipment, such as a product recovery device, whose total cost of installation, operation and maintenance is far less than the net savings that the source enjoys from recovering otherwise lost product.

The powders that Praxair Surface Technologies manufactures range in values up to $16 - $20 per pound. The control equipment they use is integral to the process

because for financial reasons they need to capture any emissions. Praxair keeps records on the amount of product they start with and end with, accounting has a stake in making sure the production process is efficient. They reintroduce the product that has been captured back into the production process. Praxair has an elaborate baghouse and pneumatic conveying system that collects emissions and vents indoors 24 hours a day. In addition, the ambient air has always met OSHAs requirements.

IDEM, OAM, and ERMD have evaluated the justifications and agreed that the baghouses, baffles, and HEPA filters will be considered as an integral part of the surface coating process. Therefore, the permitting level will be determined using the potential to emit after the baghouses, baffles, and HEPA filters. Operating conditions in the proposed permit will specify that these baghouses, baffles, and HEPA filters shall operate at all times when the surface coating equipment is in operation.

Building 3: 1555 Main Street, Indianapolis, Indiana 46224.

(b) The company has submitted the following justification such that the air pollution control equipment, baghouses and HEPA filters be considered as an integral part of the specialty powders manufacturing process:

(1) The control equipment has an overwhelming positive net economic effect - control equipment, such as a product recovery device, whose total cost of installation, operation and maintenance is far less than the net savings that the source enjoys from recovering otherwise lost product.

The powders that Praxair Surface Technologies manufactures range in values up to $16 - $20 per pound. The control equipment they use is integral to the process because for financial reasons they need to capture any emissions. Praxair keeps records on the amount of product they start with and end with, accounting has a stake in making sure the production process is efficient. They reintroduce the product that has been captured back into the production process. Praxair has an elaborate baghouse and pneumatic conveying system that collects emissions and vents indoors 24 hours a day. In addition, the ambient air has always met OSHAs requirements.

(2) ~~The control equipment serves a primary purpose other than pollution control - the control equipment will have to serve as a fundamental component in another process or operation. The control equipment provides good housekeeping practices. It is paramount that the individual products do not mix and cause cross contamination. The control equipment functions in a way that keeps the product confined to its designated area.~~ **The control equipment serves a primary purpose other than pollution control - the control equipment will have to serve as a fundamental component in another process or operation.**

The control equipment provides good business practices. Production can be streamlined and exist in the same environment. In specialty powder manufacturing it is paramount that the individual products do not mix and cause cross contamination. Cross contamination in the process would compromise the end product. Without the collection equipment, additional

work would be needed to separate the products. There would not be a way to rid the products of low level contamination. The more pure the product the higher the price and the increase in sales.

Two separate specialty powder manufacturing processes operate side by side with out threat of cross contamination because of the system that is in place. Cross contamination is prevented due to the pneumatic conveying and baghouse-HEPA capture system. The control equipment functions in a way that keeps the product confined to its particular production process.

IDEM, OAM and ERMD have evaluated the justifications and agreed that the baghouses and HEPA filters will be considered as an integral part of the specialty powders manufacturing process. Therefore, the permitting level will be determined using the potential to emit after the baghouses and HEPA filters. Operating conditions in the proposed permit will specify that these baghouses and HEPA filters shall operate at all times when the specialty powders manufacturing process is in operation.

The following comments were received from the Permittee either by phone or in writing.

Comment 1:

Clarify requirements, if any, for compliance with the Natural Gas Boilers.

Response 1:

A PMP is required as listed in Change one. In addition, The Natural Gas Boiler Condition and subsequent Report form should have been included in the permit. For a natural gas boiler rather than requiring visual emission notations, Praxair is required to submit a report each quarter verifying that only Natural gas and no alternate fuels were combusted in the boiler.

D.1.5 Reporting Requirements

A Natural Gas Boiler Certification shall be submitted to the address listed in Condition C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: **Praxair Surface Technologies**
Source Address: **1500 Polco Street, Indianapolis, Indiana 46224**
Mailing Address: **1500 Polco Street, Indianapolis, Indiana 46224**
FESOP Permit No.: **F097-7487-00060**

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Report period
Beginning: _____
Ending: _____

Boiler Affected	Alternate Fuel	Days burning alternate fuel From	To

(can omit boiler affected if only one gas boiler at this plant)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Comment 2:

How do we show compliance with Conditions D.2.1 and D.2.2?

Response 2:

Maintaining records of Visual Emission (VEs) notations satisfies the compliance monitoring requirement D.2.1 and D .2.2. Condition D.2.5 (now renumbered D.2.6) should have read as follows:

D.2.6 Record Keeping Requirements

(a) To document compliance with Condition ~~D.2.4~~ **D.2.1, D.2.2, and D.2.5**, the Permittee shall maintain records of daily visible emission notations of the stack exhaust.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 3:

General Record keeping Requirements and Reporting Requirements are not located in the C. Sections referenced in the D. Sections.

Response 3:

The General Record Keeping Requirements and General Reporting Requirements of the C. section were mis-referenced in the D. sections. The Conditions should have read as follows:

D.4.11 Record Keeping Requirements

(d) All records shall be maintained in accordance with Section ~~C.20~~ **C.18** - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1 and D.4.3 shall be submitted to the address(es) listed in Section ~~C.21~~ **C.19** - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

Comment 4:

Section D.8, Record Keeping There are no Conditions D.8.5 and D.8.6 as listed in Condition D.8.4.

Response 4:

Condition D.8.4 should have been deleted prior to Publishing.

~~D.8.4 Record Keeping Requirements~~

~~(a) To document compliance with Condition D.8.5, the Permittee shall maintain records of daily visible emission notations of Emission Units stack exhaust.~~

~~(b) To document compliance with Condition D.8.6, the Permittee shall maintain records of the results of the inspections required under Condition D.8.6 and the dates the vents are redirected.~~

Comment 5:

Please clarify, what type of Record Keeping is Required for D sections 5 thru 8

Response 5:

Insignificant Activities other than those activities that are otherwise regulated by state rule applicability, NESHAP, or NSPS do not have PMP, Record keeping or reporting requirements other than general source requirements covered in the B. and C. sections of the permit. In the interest of clarity Condition D.5.4, D.6. 4, D.7.4, and D.7.4 and there respective headers will be removed.

~~**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**~~

~~D.5.4 Record Keeping Requirements~~

~~All records shall be maintained in accordance with Section C.19 - General Record Keeping Requirements, of this permit.~~

~~**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**~~

~~D.6.4 Record Keeping Requirements~~

~~All records shall be maintained in accordance with Section C.18 - General Record Keeping~~

~~Requirements, of this permit.~~

~~**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**~~

~~D.7.4 Record Keeping Requirements~~

~~All records shall be maintained in accordance with Section C.18 - General Record Keeping Requirements, of this permit.~~

~~**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**~~

~~D.8.4 Record Keeping Requirements~~

~~(c) All records shall be maintained in accordance with Section C.18 - General Record Keeping Requirements, of this permit.~~

Comment 6:

A.3 and the TSD: Insignificant Activities
(23) Please revise this section to reflect the proper process identification numbers for the specialty powders manufacturing portion of the Praxair facility. The most recent process identification numbers are stated in Section A.3(26)(b). Also, the Thermal Barrier Coating Spray Dryers utilize liquid non-metal oxides.

Response 6:

In the one of the revisions of the draft permit certain process were listed in the permit twice due to changes in process identification numbers. The following processes are duplicates and are referred to in separate parts of the Condition A.3. The subsequent process identifications will be re-alphabetized. The TSD will not reflect these changes. It will remain as it was when published.

~~A) Hydrochloric Acid Stripping exhausted to a wet scrubber.~~
~~B) Braze coat operations.~~
~~C) Composite Spray Dryer (Process P-11A) used to atomize molten metal powders and exhausted to a wet scrubber.~~
~~D) Sintering (Process S-22): Various metals are crushed and milled to form a powder and then placed in an electric furnace. Vented to a particulate control device.~~
~~E) Hi Bay Small Atomizer (Process P-17): Research and Development operation which atomizes molten metal within a vacuum to form a powder. Vented to a particulate control device.~~
~~F) Process S-15c and S-15d. Metal powders are classified in classifiers. Vented to a particulate control device.~~
~~G) Process S-15g: Metal powders are weighed on scales and blended. Vented to a particulate control device.~~
~~H) Two (2) Nitric Acid Stripping Tanks with one tank vented to a wet scrubber.~~
~~I) Process P-9: Aluminum Oxide powder is screened within the Ipsen Furnace. Vented to a particulate control device.~~
~~J) Thermal Barrier Coating Spray Dryer (Process P-11): Molten non-metal oxides are atomized within a vacuum chamber to form a powder. Vented to a particulate control device.~~

Comment 7:

A.3 and the TSD: Insignificant Activities
(24)(a) Please revise the emission unit identification number for the Epoxy Kit Operations to read EUS21.

Response 7:

The Epoxy Kit operation is listed in two places. It should only be listed under A.3(24)(a). The emission unit designation will be changed and it will be deleted from the table under A.3(26)(b) (now renumbered Section A.3(26)(c)) and Section D.8. In addition, Section A.3(26)(b) (now renumbered Section A.3(26)(c)) and Section D.8 has been changed to reflect a recent exemption letter received after the FESOP was published. The TSD will remain as published.

(24) Insignificant Thresholds: Activities with emissions equal to or less than thresholds require listing only. Lead (Pb) = 0.6 ton/year or 3.29 lbs/day; Carbon Monoxide (CO) = 25 tpy; Sulfur Dioxide (SO_2) = 10 tpy; Particulate Matter (PM) = 5 tpy; Particulate Matter 10 (PM10) = 5 tpy; Nitrogen Oxides (Nox) = 10tpy; Volatile Organic Compounds (VOC) = 5 tpy, for sources using controls to comply with 326 IAC 8 or 10 tpy for all other sources.

(a) Location: 1555 Main Street - (Epoxy Kit Manufacturing)

Epoxy Kit Operations identified as Emission Unit ID ~~EUS12~~ **EUS21**. Includes the manufacture of Epoxy Kits containing acetone at maximum capacity of 9.4 pounds per hour. Installation date of 1985.

(26) An emission unit or activity with potential uncontrolled emissions of particulate matter with aerodynamic diameter less than or equal to ten (10) micrometers (PM10), the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day, identified as follows:

~~(c)~~(b) Location: 1415 Main Street - (Plasma Coating Operations)

Eight (8) metal powder surface coating stations, installed in 1994, identified as EU01B through EU05B and EU07B through EU09B, with a maximum capacity of 16.08 pounds of metal powders per hour, each controlled by an integral baghouse, identified as C01B through CO5B and C07B through C09B respectively.

~~(b)~~(c) Location: 1555 Main Street - Specialty Powders Manufacturing

~~Twenty eight (28)~~ **Forty six (46)** Specialty Powders Manufacturing lines, identified as Emission Units (in the table below), each controlled by an integral baghouse and HEPA filters, identified as Controls (in the table below), exhausting indoors through Stack/Vents (identified in the below).

no.	Emission Units	Controls	Stack/Vents
1	EUS1	008	S-1
2	EUS2	015	S2
3	EUS3	009	S3
4	EUP4	010	P4

5	EUS5	011	S5
6	EUS6	012	S6
7	EUS7	013	S7
8	EUP8	038	P8
9	EUP9	N/A	P9
10	EUS10	014	S10
11	EUS12	017	S12
12	EUS14	003	S14
13	EUS15	004	S-15
14	EUS16	006	S16
15	EUS17	007	S-17
16	EUS18	005	S18
17	EUS19	041	S-19
18	EUS20	040	S20
~~20~~**19**	EUS22	021	S22
~~21~~**20**	EUS23	024	S23
~~22~~**21**	EUS24	026	S24
~~23~~**22**	EUS25	022, 023, & 028	S25A, S25B, & S25C
~~24~~**23**	EUS26	029	S26
~~25~~**24**	~~EUS27~~**EUP27**	025	P27
~~26~~**25**	~~EUS28~~**EUP28**	027	P28
~~27~~**26**	~~S-29~~**EUS29**	030	S29
~~28~~**27**	EUS30	032	S30
28	**EUS32**	**P32A & P32B**	**P32A & P32B**
29	**EUS33**	**040 &044**	**S33 & S33**
30	**EUS34**	**041**	**S-34**
31	**EUS35**	**042**	**S35**
32	**EUS36**	**043**	**S36**
33	**EUS37**	**048**	**S-37**

34	**EUS41**	**044**	**S-41**
35	**EUS42**	**045**	**S-45**
36	**EUS43**	**043**	**S-43**
37	**EUS44 A & C**	**C44**	**S-44**
38	**EUS45**	**C45**	**S-45**
39	**EUS46**	**C46**	**S-46**
40	**EUS47**	**C47, C54, C48**	**S-47, S-54, S-48**
41	**EUS49**	**C49**	**S-49**
42	**EUS50**	**C50**	**S-50**
43	**EUS51**	**C51**	**S-51**
44	**EUS52**	**C52**	**S-52**
45	**EUS53**	**C53**	**S-53**
46	**EUS55**	**C55**	**S-55**

SECTION D.8 FACILITY OPERATION CONDITIONS

Location: 1555 Main Street - Specialty Powders Manufacturing

~~Twenty eight (2)~~ **Forty six (46)** Specialty Powders Manufacturing lines, identified as Emission Units (in the table below), each controlled by an integral baghouse and HEPA filters, identified as Controls (in the table below), exhausting indoors through Stack/Vents (identified in the below)

no.	Emission Units	Controls	Stack/Vents
1	EUS1	008	S-1
2	EUS2	015	S2
3	EUS3	009	P3
4	EUP4	010	S3
5	EUS5	011	S4A
6	EUS6	012	S4B
7	EUS7	013	S5
8	EUP8	038	P6
9	EUP9	N/A	S7
10	EUS10	014	S8A

11	EUS12	017	S8B
12	EUS14	003	S10
13	EUS15	004	S15A
14	EUS16	006	S15B
15	EUS17	007	S15E
16	EUS18	005	S18
17	EUS19	041	S19
18	EUS20	040	S20
~~19~~	~~EUS21~~	~~N/A~~	~~S21~~
~~20~~**19**	EUS22	021	S22
~~21~~**20**	EUS23	024	S23
~~22~~**21**	EUS24	026	S24
~~23~~**22**	EUS25	022, 023, & 028	S25A, S25B, & S25C
~~24~~**23**	EUS26	029	S26
~~25~~**24**	~~EUS27~~**EUP27**	025	P27
~~26~~**25**	~~EUS28~~**EUP28**	027	P28
~~27~~**26**	~~S-29~~**EUS29**	030	S29
~~28~~**27**	EUS30	032	S30
28	**EUP32**	**P32A & P32B**	**P32A & P32B**
29	**EUS33**	**040 & 044**	**S33 & S33**
30	**EUS34**	**041**	**S-34**
31	**EUS35**	**042**	**S35**
32	**EUS36**	**043**	**S36**
33	**EUS37**	**048**	**S-37**
34	**EUS41**	**044**	**S-41**
35	**EUS42**	**045**	**S-45**
36	**EUS43**	**043**	**S-43**
37	**EUS44 A& C**	**C44**	**S-44**
38	**EUS45**	**C45**	**S-45**

39	**EUS46**	**C46**	**S-46**
40	**EUS47**	**C47, C54, C48**	**S47, S-54, S-48**
41	**EUS49**	**C49**	**S-49**
42	**EUS50**	**C50**	**S-50**
43	**EUS51**	**C51**	**S-51**
44	**EUS52**	**C52**	**S-52**
45	**EUS53**	**C53**	**S-53**
46	**EUS55**	**C55**	**S-55**
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)			

Comment 8:

A.3 and the TSD: Insignificant Activities
(26)(b) Please include the emission units identified as EUP11A-G which vent through stack P-11A to P-11G. Please include the emission units identified as EUP13A-B which vent to dust collectors identified as 001 and 002. The vacuum atomizers Viga I and II's emission unit identification numbers should read as EUP27 and EUP28, respectively. The Jens polish/disk polish emission unit identification number should read EUS29.

Response 8:

EUP11A-G and EUP13A-B are listed under A.3(1)(a) and (b) and have been changed as follows. The changes to EUP27, 28 and EUS29 are reflected in Response 7 above. The TSD will remain as published.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(1) Natural gas fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, identified as follows:

(a) Seven (7) Chrome Oxide Furnaces identified as Emission Unit ID ~~EU005, EU006, EU007, EU008, EU009, EU010 and EU011~~ **EUP11A-G** each rated at 3.0 million Btu per hour and exhausting at Stack/Vent ID's ~~005 through 011~~ **P-11A to P-11G**, respectively.

(b) Two (2) TBC Spray Dryer Furnace, identified as Emission Unit ID ~~EU013~~ **EUP13A-B**, rated at 0.2 million Btu per hour, each controlled by baghouse identified as 001 & 002, and exhausting at Stack/Vent ID P-13A and P-13B respectively.

Comment 9:

Section D.8
Please include the emission units identified as EUP11A-G which vent through stack P-A to P-11G. Please include the emission units identified as EUP13A-B which vent to dust collectors identified as 001 and 002. The vacuum atomizers Viga I and II's emission unit identification numbers should read as EUP27 and EUP28, respectively. The lens polish emission unit identification number should read EUS29.

Response 9:

The changes are expressed in Responses 7 and 8.

Comment 10:

TSD: Limitied Potential to Emit:
Within the table identified as "Limited Potential to Emit", 1245 Main Street is missing one emission unit identified as EU12A.

Response 10:

page 12:
Emission unit EU12A has been added to the limited PTE table.

	Limited Potential to Emit						
Process/ facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Powerhouse	7.3 lb/hour	--	--	--	--	--	--
1245 Main Street Beryllium machine shop	--	--	--	--	--	--	Berylium: $\leq$ 10 grams/day
1245 Main Street EU03A, EU04A, EU09A, EU10A, **EU12A,** EU03D, EU04D, and EU05D	--	<97.5 t/y	--	--	--	--	9 t/yr & 24 t/yr
Insignificant Activities	--	--	--	--	--	--	--
Total Emissions	--	<100 t/y	--	--	--	--	<10 t/y & <25 t/y

Comment 11:

Appendix A page 4 of 8:

1555 Main Street
(1) Please include emission unit EUP11A-G;
(2) Please update the emission unit S-29 to read as EUS29.

1245 Main Street
(1) Please update the emission unit EU03 to read as EU03A;
(2) Please include the respective control unit for each emission unit;
(3) There are several EU001G emission units presented under abrasive blasting. Please update this portion to include EU003G, EU004G, EU006G, EU009G, and EU0010G.

1415 Main Street
(1) Please include the respective control unit for each emission unit.

Appendix A page 5 of 8:
1555 Main Street
(1) Please include emission unit EUP11A-G
(2) Please update the emission unit S-29 to read as EUS29

Appendix A page 6 of 8
1555 Main Street
(1) Please include emission unit EUP11A-G;
(2) Please update the emission unit S-29 to read as EUS29.

Appendix A page 8 of 8:
1345 Main Street
(1) Please include the throughput for emission unit EU002G.

Response 11:

1555 Main Street page 4, 5, and 6 of 8:
(1) Emissions from EUP11A-G and EUP13A-B are included on page 2 of 8 of the TSD Appendix A and at the bottom of page 5 of 8 TSD App. A, under Furnace and Dryers.

Further, the TSD Appendix will not be changed. However, Appendix A to the TSD Addendum has been included, which incorporates all of the comments and new insignificant emission units added. The shaded areas are incorrect, the correct answers and new emission units are bolded .

Office of Air Management
and
Environmental Resources Management Division
Air Quality Management Section

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP)

Source Background And Description

Source Name:	**Praxair Surface Technologies**
Source Location(s):	**1245 Main Street, Indianapolis, Indiana 46224** **1415 Main Street, Indianapolis, Indiana 46224** **1555 Main Street, Indianapolis, Indiana 46224** **1500 Polco Street, Indianapolis, Indiana 46224**
Mailing Address:	**1500 Polco Street, Indianapolis, Indiana 46224**
County:	**Marion**
SIC Code:	**3479 and 3999**
Operation Permit No.:	**F097-7487-00060**
Permit Reviewer:	**Monica Dick**

The Environmental Resources Management Division (ERMD), Air Quality Management Section has reviewed a Federally Enforceable State Operating Permit (FESOP) application from Praxair Surface Technologies relating to the manufacturing of metallic and non-metallic powders for surface coating and polishing applications both in house and for commercial sale.

Source Definition

This metallic powder manufacturing and surface coating operation consists of four (4) separate buildings and/or addresses:

(1) Building 1 is located at 1245 Main Street, Indianapolis, Indiana 46224.
(2) Building 2 is located at 1415 Main Street, Indianapolis, Indiana 46224.
(3) Building 3 is located at 1555 Main Street, Indianapolis, Indiana 46224.
(4) Building 4 is located at 1500 Polco Street, Indianapolis, Indiana 46224

The four (4) buildings are contiguous or adjacent and have the same owner. Operations are classified under two (2) separate Standard Industrial Classification Codes (SIC). Although, SIC codes are different all three buildings provide various support relationships. Since the operations are located on contiguous or adjacent properties, owned by the same company, and provide support relationship, they will be considered one (1) source.

Air Pollution Control Justification as an Integral Part of the Process

Buildings 1 & 2: located at 1245 Main Street & 1415 Main Street, Indianapolis, Indiana 46224.

(a) The company has submitted the following justification such that the air pollution control equipment (baghouses, baffles, and HEPA filters following all baghouses) be considered

as an integral part of the surface coating process:

The control equipment has an overwhelming positive net economic effect - control equipment, such as a product recovery device, whose total cost of installation, operation and maintenance is far less than the net savings that the source enjoys from recovering otherwise lost product.

IDEM, OAM, and ERMD have evaluated the justifications and agreed that the baghouses, baffles, and HEPA filters will be considered as an integral part of the surface coating process. Therefore, the permitting level will be determined using the potential to emit after the baghouses, baffles, and HEPA filters. Operating conditions in the proposed permit will specify that these baghouses, baffles, and HEPA filters shall operate at all times when the surface coating equipment is in operation.

Building 3: 1555 Main Street, Indianapolis, Indiana 46224.

(b) The company has submitted the following justification such that the air pollution control equipment, baghouses and HEPA filters be considered as an integral part of the specialty powders manufacturing process:

(1) The control equipment has an overwhelming positive net economic effect - control equipment, such as a product recovery device, whose total cost of installation, operation and maintenance is far less than the net savings that the source enjoys from recovering otherwise lost product.

(2) The control equipment serves a primary purpose other than pollution control - the control equipment will have to serve as a fundamental component in another process or operation. The control equipment provides good housekeeping practices. It is paramount that the individual products do not mix and cause cross contamination. The control equipment functions in a way that keeps the product confined to its designated area.

IDEM, OAM and ERMD have evaluated the justifications and agreed that the baghouses and HEPA filters will be considered as an integral part of the specialty powders manufacturing process. Therefore, the permitting level will be determined using the potential to emit after the baghouses and HEPA filters. Operating conditions in the proposed permit will specify that these baghouses and HEPA filters shall operate at all times when the specialty powders manufacturing process is in operation.

Permitted Emission Units and Pollution Control Equipment

<u>Location: 1245 Main Street</u> - (Metal Surface Coating Operations)

(1) Four (4) detonation surface coating stations, identified as EU03A, EU09A, EU10A, and EU12A, each with a maximum capacity of 32.16 pounds of coating per hour, each controlled by integral baffles, identified as EU03A, EU09A, EU10A, and EU12A, exhausting at a Stack/Vent, identified as 03A, 09A, 10A, and 12A respectively installed prior to 1988.

(2) One (1) High Velocity Oxy Fuel coating gun, Installed in 1991, identified as EU04A, with a maximum capacity of 16.08 pounds of coating per hour, controlled by integral baffles, exhausting at Stack/Vent ID 04A.

(3) Three (3) plasma surface coating stations, identified as EU03D, EU04D and EU05D, controlled by integral baffles, with a maximum capacity of 8.04 pounds of powder coating per hour, exhausting at Stack/Vent ID 03D, 04D and 05D respectively, installed prior to 1982.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(1) Natural gas fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, identified as follows:

(a) Seven (7) Chrome Oxide Furnaces identified as Emission Unit ID EU005, EU006, EU007, EU008, EU009, EU010 and EU011 each rated at 3.0 million Btu per hour and exhausting at Stack/Vent ID's 005 through 011, respectively.

(b) Two (2) TBC Spray Dryer Furnace, identified as Emission Unit ID EU013, rated at 0.2 million Btu per hour, each controlled by baghouse identified as 001 & 002, and exhausting at Stack/Vent ID P-13A and P-13B respectively.

(2) Combustion source flame safety purging on startup.

(3) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(4) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6.

(5) Cleaners and solvents characterized as follows:
A) Having a vapor pressure equal to or less than 2.0 kPa; 15 mm Hg or 0.3 psi measured at 38.0 Celsius or;
B) Having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg or 0.1 psi measured at 20.0 Celsius
The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(6) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment and welding equipment.

(7) Closed loop heating and cooling systems.

(8) Solvent recycling systems with batch capacity less than or equal to 100 gallons.

(9) Activities associated with the treatment of wastewater streams with an oil or grease content of less than or equal to 1 % by volume.

(10) Any operation using aqueous solutions containing less than 1 % by weight of VOCs excluding HAPs.

(11) Water based adhesives that are less than or equal to 5 % by volume of VOCs excluding HAPs.

(12) Forced and induced draft cooling tower system not regulated under a NESHAP.

(13) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(14) Heat exchanger cleaning and repair.

(15) Process vessel degeasing and cleaning to prepare for internal repairs.

(16) Paved and unpaved roads and parking lots with public access.

(17) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures or vehicles at the source where air emissions from those activities would not be associated with any production process.

(18) Equipment used to collect any material that might be released during a malfunction, process upset or spill cleanup including catch tanks, temporary liquid separators, tanks and fluid handling equipment.

(19) Blowdown for any of the following: sight glass, boiler; compressor; pumps; and cooling tower.

(20) Gasoline generators not exceeding 110 horsepower.

(21) Filter or coalescer media changeout.

(22) A laboratory as defined in 326 IAC 2-7-1(20)(C).

(23) The following units emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of any single HAP:

A) Hydrochloric Acid Stripping exhausted to a wet scrubber.
B) Braze coat operations.
C) Composite Spray Dryer (Process P-11A) used to atomize molten metal powders and exhausted to a wet scrubber.
D) Sintering (Process S-22): Various metals are crushed and milled to form a powder and then placed in an electric furnace. Vented to a particulate control device.
E) Hi Bay Small Atomizer (Process P-17): Research and Development operation which atomizes molten metal within a vacuum to form a powder. Vented to a particulate control device.
F) Process S-15c and S-15d. Metal powders are classified in classifiers. Vented to a particulate control device.
G) Process S-15g: Metal powders are weighed on scales and blended. Vented to a particulate control device.
H) Two (2) Nitric Acid Stripping Tanks with one tank vented to a wet scrubber.
I) Process P-9: Aluminum Oxide powder is screened within the Ipsen Furnace. Vented to a particulate control device.
J) Thermal Barrier Coating Spray Dryer (Process P-11): Molten non-metal oxides are atomized within a vacuum chamber to form a powder. Vented to a particulate control device.

K) **Location: 1245 Main Street -Beryllium Machine Shop**

One (1) machining area for acid bath etching and cutting beryllium parts, with a maximum cutting capacity one (1) of every fifty (50) parts coated, less than one ton of beryllium parts are coated per year.

(L) **Location: 1245 Main Street - (Methanol Cleaning)**

Two (2) dip tanks containing methanol using ventilation hoods for de-watering, with a maximum capacity of 0.5 gallons of methanol per hour, identified as EU010S, exhausting to S/V010S.

(24) Insignificant Thresholds: Activities with emissions equal to or less than thresholds require listing only. Lead (Pb) = 0.6 ton/year or 3.29 lbs/day; Carbon Monoxide (CO) = 25 tpy; Sulfur Dioxide (SO_2) = 10 tpy; Particulate Matter (PM) = 5 tpy; Particulate Matter 10 (PM10) = 5 tpy; Nitrogen Oxides (Nox) = 10tpy; Volatile Organic Compounds (VOC) = 5 tpy, for sources using controls to comply with 326 IAC 8 or 10 tpy for all other sources.

(a) Location: 1555 Main Street - (Epoxy Kit Manufacturing)

Epoxy Kit Operations identified as Emission Unit ID EUS12. Includes the manufacture of Epoxy Kits containing acetone at maximum capacity of 9.4 pounds per hour. Installation date of 1985.

(b) Location: Powerhouse - 1500 Polco Street

One (1) insignificant Cleaver Brooks natural gas fired boiler identified as Emission Unit ID EU004 with a maximum heat input capacity of 14.6 million Btu per hour using no add on pollution control equipment and exhausting to Stack/Vent ID 004. Located in the powerhouse and manufactured and installed in 1992.

(25) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of equal to or less than 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including; deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations, identified as follows:

(a) Location: 1245 Main Street - (abrasive blasting)
Two (2) Empire Pro-Finish Glass Bead Cabinet Blasting units, identified as EU01GB and EU02GB with maximum glass bead cycling of 600 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C01GB and C02GB, exhausting at Stack/Vent ID 01GB and 02GB.

(b) Location 1245 Main Street - (abrasive blasting)
(1) Thirteen (13) aluminum oxide grit blasting unit, each with a maximum capacity shot cycling of 600 pounds per hour, identified as follows:

(a) Five (5) units identified as EU003G, EU004G, EU006G, EU009G and EU010G, controlled by one (1) integral baghouse rated at 99.97 percent efficiency, identified as C001G; and

(b) Two (2) units identified as EU001G and EU005G, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as DCEV#8 and C005G respectively; and

(c) Six (6) aluminum oxide grit blast units, identified as EU002G, EU007G EU008G, EU011G, EU012G, and EU014G each controlled by an integral baghouse, rated at 99.0 percent efficiency, identified as C002G, C007G, C008G, C011G, C012G, and EU014G respectively.

(2) One (1) aluminum oxide grit blast unit, identified as EU013G, with maximum capacity of 200 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C013G.

(c) Location: 1415 Main Street - (abrasive blasting)
Two (2) PST steel shot peen shot blasting cabinet, installation date of 1994,

(a) Emission Unit ID EU01L, with a maximum capacity of 5.36 pounds per hour, controlled by an integral baghouse, identified as C01L, exhausting to S/V 01L

(b) Emission Unit ID EU02L with a maximum capacity of 1.48 pounds per hour, controlled by an integral baghouse, identified as C02L, exhausting to S/V 02L.

(d) Location: 1415 Main Street - (abrasive blasting)
(1) Ten grit blasting units, installed in 1994(unless otherwise indicated), with a maximum capacity of 360 pounds per hr, identified as follows

(a) Three (3) aluminum oxide grit blasting units, EU01C, EU04C, and EU05C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C01C, exhausting at Stack/Vent ID 01C.

(b) One (1) silicon carbide grit blasting units, EU02C controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C02C, exhausting at Stack/Vent ID 02C.

(c) One (1) Schmidt aluminum oxide grit blasting unit, EU03C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C03C, exhausting at Stack/Vent ID 03C.

(d) Two (2) Zero aluminum oxide grit blasting unit, EU06C and EU08C, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C06C and EU08C, exhausting at Stack/Vent ID 06C and 08C.

(e) One (1) Empire aluminum oxide grit blasting unit, Installation date of 1996, EU10C, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C10C, exhausting at Stack/Vent ID 10C.

(2) Two (2) grit blasting units, installed in 1998, with a maximum capacity of cycling 600 pounds of shot per hr, identified EU11C and EU12C, each controlled by an integral baghouse rated at 99.0 percent efficiency, identified as C11C and C12C, exhausting at Stack/Vent ID 11C and 12C respectively.

(e) **Location: 1415 Main Street - (abrasive blasting)**
EBPVD glass shot peen operation consisting of three (3) glass shot peen blasting cabinets, installation date of 1998, identified as follows:

(a) EUG1 and EUG2, with maximum capacity of 180 pounds per hour, controlled by an integral baghouse rated at 99.99 percent efficiency, identified as C4

(b) EUG3, with maximum capacity of 60 pounds per hour, controlled by an integral baghouse rated at 99.0 percent efficiency, identified as CG3

(26) An emission unit or activity with potential uncontrolled emissions of particulate matter with aerodynamic diameter less than or equal to ten (10) micrometers (PM10), the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day, identified as follows:

(a) **Location: 1245 Main Street - (Metal Surface Coating Operations)**

(1) Eight (8) detonation surface coating stations, installed prior to 1988, each with a maximum capacity of 32.16 pounds of coating per hour, identified as follows:

(a) Six (6) Speedy Susan D guns, identified as EU01A, EU02A, EU14A, EU15A, EU16A, and EU17A, each controlled by an integral baghouse, identified as C01A, C02A, C14A, C15A, C16A, & C17 respectively, exhausting individually to Stack/Vent ID 01A, 02A, 14A, 15A, 16A & 17A respectively;

(b) Two (2) D guns, identified as EU05A and EU06A, each controlled by an integral baghouse, identified as C05A and C06A, exhausting to Stack/Vent ID 05A and 06A; and

(2) two (2) plasma surface coating stations, identified as EU06D and EU10D, each controlled by an integral baghouse, identified as C06D and C10D, each with a maximum capacity of 8.04 pounds of powder coating per hour, exhausting at Stack/Vent ID 06D and 10D, installed prior to 1982.

(e) **Location: 1415 Main Street - (Plasma Coating Operations)**

Eight (8) metal powder surface coating stations, installed in 1994, identified as EU01B through EU05B and EU07B through EU09B, with a maximum capacity of 16.08 pounds of metal powders per hour, each controlled by an integral baghouse, identified as C01B through CO5B and C07B through C09B respectively.

(b) Location: 1555 Main Street - Specialty Powders Manufacturing

Twenty eight (28) Specialty Powders Manufacturing lines, identified as Emission Units (in the table below), each controlled by an integral baghouse and HEPA filters, identified as Controls (in the table below), exhausting indoors through Stack/Vents (identified in the below).

no.	Emission Units	Controls	Stack/Vents
1	EUS1	008	S-1
2	EUS2	015	S2
3	EUS3	009	S3
4	EUP4	010	P4
5	EUS5	011	S5
6	EUS6	012	S6
7	EUS7	013	S7
8	EUP8	038	P8
9	EUP9	N/A	P9
10	EUS10	014	S10
11	EUS12	017	S12
12	EUS14	003	S14
13	EUS15	004	S-15
14	EUS16	006	S16
15	EUS17	007	S-17
16	EUS18	005	S18
17	EUS19	041	S-19
18	EUS20	040	S20
19	EUS21	N/A	S21
20	EUS22	021	S22
21	EUS23	024	S23
22	EUS24	026	S24
23	EUS25	022, 023, & 028	S25A, S25B, & S25C
24	EUS26	029	S26

25	EUS27	025	P27
26	EUS28	027	P28
27	S-29	030	S29
28	EUS30	032	S30

(27) Emissions from research and development activities as defined in this clause. As used in this clause, "research and development activities" means activities conducted under close supervision of technically trained personnel, that are not engaged in the manufacture of products for sale, exchange for commercial profit, or distribution, except in a de minimis manner and the primary purpose of which is to:
(i) test more efficient production processes;
(ii) test methods for preventing or reducing adverse environmental impacts; or
(iii) conduct research and development into new processes and products.
Support activities necessary to the research and development activities are considered to be part of the research and development activities. Support activities do not include the provision of power to the research and development activities from sources that provide power to multiple projects or from sources that would otherwise require permitting, such as boilers that provide power to a source or solid waste disposal units, such as incinerators. included are the following:

Location: 1500 Polco Street - R & D Lab

(A) ten (10) powder supplied metal surface coaters identified as 01A, 02A - 04A and JV 5000, 01B - 06B
(B) eight (8) grit blasting cabinets, identified as Blasters 1 - 8, controlled by a dust collector venting to the atmosphere

Trivial Activities

The source also consists of the following trivial activities, as defined in 326 IAC 2-7-1(40):

Location: 1415 Main Street - (Hand Held Grinding)
Two (2) Downdraft tables for hand held grinding, installation date of 1997, identified as Emission Unit ID EUT1 and EUT2, with a maximum of 16.65 pounds removed per hour, controlled by a baghouse rated at 99.99 percent efficiency, identified as C1, in series with a HEPA filter rated at 99.97 percent efficiency for 0.3 micron particles, exhausting at Stack/Vent ID C1.

Existing Approvals

This source has been operating under the following approval:

(1) Certificate of Operation No. 5321-01, issued on March 10, 1993;

(2) Letter of Exemption, issued on June 23, 1992;

(3) Letter of Exemption, issued on July 16, 1991;

(4) Application for Exempt Source, received June 20, 1990;

(5) Application for Exempt Source, received August 13, 1990;

(6) Certificate of Operation No. 0207, issued on January 18, 1989;

(7) Letter of Exemption, issued on May 10, 1989;

(8) Letter of Exemption, issued April 26, 1989; and

(9) Application for Exempt Source, submitted January 15, 1976.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Administrator that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on December 12, 1996. Additional information was received on October 31, 1997, during a meeting with Praxair on February 17, 1998 and on March 9, 1998.

Emissions Calculations

See Appendix A: Emissions Calculations for detailed calculations (Pages 1 through 8).

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

(For each pollutant listed below the total Potential Emissions from all facilities are added together)

Pollutant	Potential Emissions (tons/year)
PM	107.27
PM-10	107.27
SO_2	0.0
VOC	0.4
CO	5.4
NO_x	6.4

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

See attached spreadsheets for detailed calculations (Pages 1 through 8 in Appendix A).

HAP	Potential Emissions (tons/year)
Chromium Compounds	greater than 10
Cobalt Compounds	less than 10
Nickel Compounds	less than 10
Methanol	less than 10
Ethylene Glycol	less than 10
TOTAL	less than 25

See attached spreadsheets for detailed calculations (Pages 1 through 8 in Appendix A).

(a) The potential emissions (as defined in the Indiana Rule) of PM10 are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7,

and

(b) The potential emissions (as defined in Indiana Rule) of Chromium Compounds are equal to or greater than ten (10) tons per year and the potential emissions (as defined in Indiana Rule). Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

and

(d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, any fugitive particulate matter (PM) emissions are not counted toward determination of PSD and/or Emission Offset applicability.

Limited Potential To Emit

(a) The source has accepted a federally enforceable limit on potential to emit PM10 less than 100 tons per year for significant and insignificant activities combined. The permit contains provisions that allow the source to use rolling monthly records to document compliance with the limitation(s).

(b) The source has accepted a limit on potential to emit less than 10 tons per year for any single HAP and/or less than 25 tons per year for any combination of HAPs. The permit contains provisions that allow the source to use rolling monthly records to document compliance with the limitation(s).

(c) The table below summarizes the total limited potential to emit of the significant and insignificant emission units.

	Limited Potential to Emit						
Process/ facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Powerhouse	7.3 lb/hour	--	--	--	--	--	--
1245 Main Street Beryllium machine shop	--	--	--	--	--	--	Berylium: $\leq$ 10 grams/day
1245 Main Street EU03A, EU04A, EU09A, EU10A, EU03D, EU04D, and EU05D	--	<97.5 t/y	--	--	--	--	9 t/yr & 24 t/yr
Insignificant Activities	--	--	--	--	--	--	--
Total Emissions	--	<100 t/y	--	--	--	--	<10 t/y & <25 t/y

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM	attainment
PM-10	unclassifiable
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	unclassifiable

Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

New Source Performance Standards

Emission Unit ID EU004, the Cleaver Brooks 14.6 million Btu per hour natural gas fired boiler is subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60.40c Subpart Dc), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units because the boiler was manufactured and installed in 1992 and is greater than 10 million Btu heat input. USEPA guidance indicates that as long as only natural gas is being fired in the NSPS boiler, the daily record keeping provisions of 40 CFR Part 60.48c(g) (the amount of fuel combusted on a daily basis) would serve little purpose. However, USEPA has indicated that a monthly record of

natural gas consumption is adequate to demonstrate compliance with the record keeping provisions of 40 CFR Part 60.48c(g). Because the unit is natural gas fired, the only applicable provisions of 40 CFR 60.40c appear to be initial notification requirements that such a boiler is being installed and record keeping required by 40 CFR Part 60.48c(g). ERMD issued a Certificate of Operation for this installation in March 1993 following the notification of installation to ERMD through receipt of the permit application.

No other New Source Performance Standards to apply at this time.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

Pursuant to 326 IAC 14-3 and 40 CFR 61, Subpart C, this source is subject to the National emission standards for beryllium machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5 percent beryllium by weight. This source is subject to a limit which shall not exceed 10 grams of beryllium over a 24-hour period, equivalent to 9.2×10^{-4} pounds per hour.

40 CFR 63, Subpart T, (Halogenated Solvent Cleaning), has no applicable limit because the degreasing operations at Praxair Surface Technologies are applied manually with a cloth and consist of MEK, Isopropyl Alcohol, and an aqueous solution that contains no VOCs or HAPs

40 CFR 63, Subpart N, (Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks), is not applicable to the surface coating operations at Praxair Surface Technologies. All surface coatings are in powder form and are applied using detonation guns.

State Rule Applicability - Entire Source

326 IAC 1-7 Stack Height Provisions

This source, otherwise subject to 326 IAC 1-7 (Stack Height Provisions), is specifically exempted from GEP Stack height requirements because 326 IAC 1-7-5(a) (Stack Height Provisions: Exemptions and Limitations) states all sources having less than 25 tons per year of actual Particulate Matter (PM) emissions (after controls) are exempted from the stack height requirements of 326 IAC 1-7-3(a). The source claims on Form GSD-07 that PM emissions, after controls, are 1.97 tons per year.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than or one hundred (100) tons per year of PM10. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method

9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-8 Federally Enforceable State Operating Permit (FESOP) Program

The source has actual VOC and PM10 (with control) emissions of less than one hundred (100) tons per year, actual combined HAP's emissions (with control) of less than twenty five (25) tons per year and has less than ten (10) actual tons per of any single HAP. Praxair Surface Technologies elects to obtain a FESOP under 326 IAC 2-8 to enforceably limit PTE to below major source thresholds.

326 IAC 6-4 Fugitive Dust Emissions

This regulation is applicable to all sources of fugitive dust. The intent of the rule is to prohibit fugitive dust from visibly crossing property lines or not to have ground level ambient air concentrations exceed 326 IAC 6-4 specified levels above background concentrations. The source appears to be in compliance with the intent of 326 IAC 6-4 at the time of FESOP issuance.

State Rule Applicability - Individual Facilities

Article 6 Particulate Rules

Marion County is listed under 326 IAC 6-1-7. However, neither the source nor facilities are listed in 326 IAC 6-1-12. However, the source has the potential to emit one hundred (100) tons per year of PM or actuals of ten (10) tons or more of PM per year. Therefore, 326 IAC 6-1-2 applies to the berylium machining opertations, surface coating operation, grinding and machining operations, specialty powders manufacturing operations, and the brazing equipment; cutting torches; soldering equipment; and/or welding equipment.

Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Particulate Limitations; Specified), Particulate Matter (PM) emissions from each PM Emission Unit, shall be limited to no greater than 0.03 grain per dry standard cubic foot of exhaust.

Pound per hour equivalencies and compliance calculations are detailed on pages 1 through 8 of appendix A.

Article 2 FESOP less than 100 ton/year

The equipment at this source, except for EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D at 1245 Main Street, can run at maximum capacity and emit less than major source thresholds of PM10. Therefore, including the potential to emit, at maximum capacity, of PM10 from the other facilities, EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D at 1245 Main Street shall be limited to less than 100 tons per year of PM10.

Particulate Matter Less than 10 Microns (PM10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP: Permit Content), Particulate Matter Less than 10 Microns (PM10) emissions EU03A, EU04A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D at 1245 Main Street shall be limited to less than100 ton PM emission per 12 consecutive month period minus all remaining emission units, which is equal to less than 92.5 tons of Particulate Matter less than 10 Microns per rolling twelve (12) consecutive month period or a throughput of 685.43 tons per twelve (12) consecutive month period. For the purposes of determining compliance every one (1) ton of throughput in EU03A, EU04A, EU09A, EU10A, and EU12A will be equivalent to 1.85 tons of throughput in EU03D, EU04D, and EU05D. This limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

FESOP emission limits (t/yr):
Specialty Powders PM10 emissions: 4.38
1245 Main Street Abrasive blasting PM10 emissions: 0.97
1415 Main Street Abrasive blasting PM10 emissions: 0.78
1245 Main Surface Coating PM10 emissions: 99.76
1415 Main Surface Coating PM10 emissions: 0.00
Methanol, Berylium, and Acetone PM10 emissions: 0.08
Power house PM10 emissions: 1.3
Limit:
Total: 107.27t/yr - 99.76t/yr(EU03A, 04A, 10A, 12A, 09A, EU03D, 04D, & 05D) = 7.5t/yr
FESOP = 100t/yr - 7.5t/yr(potential emissions from all EU other than the afore listed) = **92.5t/yr**

Conversion of emission limit from emissions in t/yr to throughput in t/yr:
EU03A, 10A, 12A, 09A =
32.16#/hr throughput * 8760hr/yr * t/2000# = 140.86t/yr throughput
17.36#/hr collected @ 80% eff. * 8760hr/yr * t/2000# = 76.04t/yr collected
(76.04t/yr collected / 0.8 control eff.) - 76.04t/yr= 19.01t PM emissions/yr (potential)
140.86t/yr throughput / 19.01t PM emissions/yr = 7.41t/yr throughput per 1t PM emission/yr
7.41t/yr throughput * 92.5 t PM emission allowable/yr = **685.43 t/year throughput allowable**
1t PM emission/yr

Equivalency:
EU04A
16.08#/hr throughput * 8760hr/yr * t/2000# = 70.43t/yr throughput
8.68#/hr collected @ 80% eff. * 8760hr/yr * t/2000# = 38.02t/y collected
(38.02t/yr collected / 0.8 control eff.) - 38.02t/yr collected = 9.51t PM emissions/yr (potential)
70.43t/yr throughput / 9.51t PM emissions/yr = 7.41t/yr throughput per 1t PM emission/yr
emissions from EU04A are at the same ratio as EU03A, 10A, 12A, 09A

EU03D, 04D, 05D
8.04#/hr throughput * 8760hr/yr * t/2000# = 35.22t/yr throughput
4.34#/hr collected @ 80% eff. * 8760hr/yr * t/2000# = 19.01t/y collected
(19.01t/yr collected / 0.8 control eff.) - 19.01t/yr collected = 4.75t PM emissions/yr
19.01t/yr throughput / 4.75t PM emissions/yr = 4.00t/yr throughput per 1t PM emission/yr
7.41t/yr / 4.00t/yr = **1.85**
emissions from EU03D, 04D, 05D are 1.85 times greater than EU03A, 10A, 12A, 09A

Article 6 indirect heating

Since the facility received a permit for construction after September 21, 1983, the facility is subject to 326 IAC 6-2-4.

326 IAC 6-2-4 Particulate Emission Limitations for Sources of Indirect Heating

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the Particulate Matter emissions are limited to the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of particulate matter emitted per million Btu of heat input (lb/mmBtu)
Q = total source maximum operating capacity in million Btu per hour (mmBtu/hr)

Based on Q value of 14.6 mmBtu/hr, Emission Unit ID EU004 allowable PM emissions are limited to 0.5 pounds per mmBtu.

PM Limit:
14.6 mmBtu/hr * 0.5 lb/mmBtu = 7.3 lb/hr
PM emissions conversion:
0.1t PM/yr * 2000lb/t * 8760hr/yr = 0.02lb/hr

Based on the PM calculations shown in the TSD Appendix A page 9 of 11, EU004 is in compliance with the allowable PM limitation set pursuant to 326 IAC 6-2-4.

Article 2 FESOP less than 10 ton/year single HAP

EU03A, EU09A, EU10A, EU12A, EU03D, EU04D, and EU05D at 1245 Main Street, shall have a limited throughput to decrease single HAP emissions to less than 10 ton year of a single HAP. All other equipment can run at maximum capacity and emit less than major source thresholds of single and combined HAPs. Therefore, including the potential to emit, at maximum capacity, of HAPs from the other facilities, EU03A, EU09A, EU10A, EU03D, EU04D, and EU05D at 1245 Main Street shall be limited to less than 10 tons per year of a single HAP.

Hazardous Air Pollutants [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP: Permit Content);

Any single regulated HAP emissions from Surface Coating Operations at 1245 Main Street, identified as EU03A, EU09A, EU10A, EU12A, EU03D, EU04D, or EU05D shall each be less than 10 ton single HAP emission per 12 consecutive month period minus all remaining emission units, which is equal to 9 tons per rolling twelve (12) consecutive month period or a throughput of 139.05 tons per twelve (12) consecutive month period. For the purposes of determining compliance every one (1) ton of throughput in EU03D, EU04D, and EU05D will be equivalent to 6.33 tons of throughput in EU03A, EU09A, EU10A, and EU12A.

Any single HAP emissions is limited such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

HAP FESOP throughput limit for current usage percentages:
EU03A, 10A, 12A, 09A = PM &PM10 emissions = 19.01t/yr
Chromium = 7.57% emissions = 1.44t/y*
Cobalt = 7.38% emissions = 1.40t/y*
Nickel = 1.75% emissions = 0.33t/y*

EU04A = PM &PM10 emissions = 9.51t/yr
Chromium = 0.00% throughput = 0.00t/y
Cobalt = 13.33% throughput = 1.27t/y*
Nickel = 0.00% throughput = 0.00t/y

EU03D, 04D, 05D = PM &PM10 emissions = 4.75t/yr
Cromium = 48.10% throughput = 2.28t/y*
Cobalt = 1.42% throughput = 0.07t/y*
Nickel = 20.40% throughput = 0.97t/y*

Single HAP Totals(t/yr): Chromium = 12.6, Cobalt = 7.1, Nickel = 4.24
Combined HAP Totals(t/yr): EU03A, 10A, 12A, 09A, 04A, 03D, 04D, 05D = 23.92
Methanol and Berylium HAP emissions: 0.08

Powerhouse HAP emissions: 0.26

*HAP emissions are based on PM & PM10 emission potentials. Metal HAPs are in powder form and are assumed, for purposes of this permit, to be emitted at the same percentage as they are used.

Since potential combined HAP totals are less than 25 tons per year no limit is necessary. However, Chromium as a single HAP must be limited to less than 10 tons per year. Therefore, if EU03A, 10A, 12A, 09A, 03D, 04D, 05D are limited to 10 tons per year minus potential chromium emissions from all other emission units at the source (one ton per year will cover potential Cr emissions from all other emission units) 326 IAC 2-7 (Part 70 Permit Program) does not apply

Chromium:
EU03A, 10A, 12A, 09A = 140.86t/yr throughput
140.86t/yr throughput / 1.44t Cr emissions/yr = 97.82t/yr throughput per 1t PM emission/yr
97.82t/yr throughput * 9 t PM emission allowable/yr = **880.38 t/year throughput allowable**
1t PM emission/yr

EU03D, 04D, 05D
35.22t/yr throughput / 2.28t PM emissions/yr = 15.45t/yr throughput per 1t PM emission/yr
15.45t/yr throughput * 9 t PM emission allowable/yr = **139.05 Cr throughput/year***
1t PM emission/yr

Equivalency ratio:
880.38 t/year throughput allowable / 139.05 Cr throughput/year = 6.33

Chromium throughput limit is 139.05 Cr throughput/year with an equivalency for the purposes of determining compliance every one (1) ton of throughput in EU03D, EU04D, and EU05D will be equivalent to 6.33 ton of throughput in EU03A, EU09A, EU10A, and EU12A

326 IAC 8-2 Surface Coating Emissions Limitations

326 IAC 8-2-9 (Surface Coating Emission Limitations: Miscellaneous Metal Coating Operations) does not apply to this source even though one SIC (3479) activity indicates Coating, Engraving and Allied Services. The applicability threshold of 326 IAC 8-2 is any facility with actual VOC emissions of equal to or greater than fifteen (15) pounds per day. No appreciable VOC emissions are expected from surface coating activities at this source because metal powders are melted in Detonation Guns and Plasma Guns and blasted onto the surface(s) of the parts to be coated.

326 IAC 8-3-5(a) Organic Solvent Degreasing Operations

Emission Unit ID EU010S, Methanol Cleaning is the only degreasing operation that is not a wipe on wipe off operation. Sections 2 through 4 do not apply because the source does not have the potential to emit 100 ton per year of VOCs. However, the degreasing operations were existing prior to July 1,1990 and the facility is located in Marion County. Therefore Sections 5 through 7 are applicable. Since the degreasing operations meet the definition of cold cleaner degreaser, the following 326 IAC 8-3-5(a) requirements of must be met.

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees

Fahrenheit (100^{O}F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120^{O}F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance

with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in permit Section D are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in permit Section D. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

All Emission Units exhausting to the outside air have applicable compliance monitoring conditions as specified below:

(a) Daily visible emissions notations of each Emission Unit stack exhaust shall be performed during normal daylight operations when venting directly to the atmosphere. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

(b) An inspection shall be performed each calender quarter of all baghouses controlling Emission Units when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

(c) In the event that bag failure has been observed:

(1) The affected compartments will be shut down immediately until the failed units have been repaired or replaced.

(2) Based upon the findings of the inspection, any additional response steps will be devised within eight (8) hours of discovery and will include a timetable for completion.

These monitoring conditions are necessary because to that proper operation and maintenance of emission controls is ongoing in order to ensure compliance with PM limitations (set by 326 IAC 2-8

(FESOP) and opacity standards (326 IAC 5-1)

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

This source has accepted federally enforceable air toxic emission limits of less than 10 tons per year for any single HAP and less than 25 tons per year for any combination of HAPs (see TSD Appendix A Pages 3 and 4 of 35).

Conclusion

The operation of this metallic and non-metallic powder manufacturing and coating operation will be subject to the conditions of the attached proposed **FESOP No. F097-7487-00060.**

Potential emissions of all Emission units based on mass balance calculations

	HAPs	PM10
Specialty Powder		
EUS1	0.00	0.00
EUS2	0.00	0.00
EUS3	0.00	0.00
EUP4	0.00	0.00
EUS5	0.00	0.00
EUS6	0.00	0.00
EUS7	0.00	0.00
EUP8	0.00	0.00
EUP9	0.00	4.38
EUS10	0.00	0.00
EUS12	0.00	0.00
EU013 (process)	0.00	0.00
EU013 (process)	0.00	0.00
EUS14	0.00	0.00
EUS15	0.00	0.00
EUS16	0.00	0.00
EUS17	0.00	0.00
EUS18	0.00	0.00
EUS19	0.00	0.00
EUS20	0.00	0.00
EUS21	0.00	0.00
EUS22	0.00	0.00
EUS23	0.00	0.00
EUS24	0.00	0.00
EUS25	0.00	0.00
EUS25	0.00	0.00
EUS25	0.00	0.00
EUS26	0.00	0.00
EUS27	0.00	0.00
EUS28	0.00	0.00
S-29 **EUS29**	0.00	0.00
EUS30	0.00	0.00
EUP32A	**0.00**	**0.00**
EUP32B	**0.00**	**0.00**
EUS33	**0.00**	**0.00**
EUS33	**0.00**	**0.00**
EUS34	**0.00**	**0.00**
EUS35	**0.00**	**0.00**
EUS36	**0.00**	**0.00**
EUS37	**0.00**	**0.00**
EUS41	**0.00**	**0.00**
EUS42	**0.00**	**0.00**
EUS43	**0.00**	**0.00**
EUS44A&C	**0.00**	**0.00**
EUS45	**0.00**	**0.00**
EUS46	**0.00**	**0.00**
EUS47	**0.00**	**0.00**
EUS49	**0.00**	**0.00**
EUS50	**0.00**	**0.00**
EUS51	**0.00**	**0.00**
EUS52	**0.00**	**0.00**
EUS53	**0.00**	**0.00**
EUS55	**0.00**	**0.00**
EUS44A & C	**0.00**	**0.00**
EUS37	**0.00**	**0.00**
EUS41	**0.00**	**0.00**
EUS42	**0.00**	**0.00**
EUS43	**0.00**	**0.00**
	0.00	4.38 ton/yr

1245 Main Street

Grit Blasting		
EU003G		
EU004G		
EU006G	0.00	0.02
EU009G		
EU010G		
EU001G	0.00	0.04
EU002G	0.00	0.08
EU005G	0.00	0.08
EU007G	0.00	0.08
EU008G	0.00	0.08
EU011G	0.00	0.08
EU012G	0.00	0.08
EU013G	0.00	0.03
EU014G	0.00	0.08
EU11C	0.00	0.08
EU12C	0.00	0.08
EU01GB	0.00	0.08
EU02GB	0.00	0.08
	0.00 ton/yr	0.97 ton/yr

1415 Main Street

Grit Blast	**HAPs**	**PM10**
EU01C	0.00	0.05
EU02C	0.00	0.04
EU03C	0.00	0.04
EU04C	0.00	0.05
EU05C	0.00	0.02
EU06C	0.00	0.04
EU08C	0.00	0.04
EU10C	0.00	0.04
EU11C	0.00	0.08
EU12C	0.00	0.08
EUG1	0.00	0.04
EUG2	0.00	0.04
EUG3	0.00	0.00
EU01L	0.00	0.18
EU02L	0.00	0.05
	0.00 ton/yr	0.78 t/yr

1245 Main Street

Surface Coating	**Cr**	**Co**	**Ni**	
EU03A	1.44	1.40	0.33	19.00
EU10A	1.44	1.40	0.33	19.00
EU12A	1.44	1.40	0.33	19.00
EU09A	1.44	1.40	0.33	19.00
EU17A	0.00	0.00	0.00	0.00
EU14A	0.00	0.00	0.00	0.00
EU15A	0.00	0.00	0.00	0.00
EU16A	0.00	0.00	0.00	0.00
EU01A	0.00	0.00	0.00	0.00
EU02A	0.00	0.00	0.00	0.00
EU05A	0.00	0.00	0.00	0.00
EU06A	0.00	0.00	0.00	0.00
EU06D	0.00	0.00	0.00	0.00
EU10D	0.00	0.00	0.00	0.00
EU04A	0.00	1.27	0.00	9.51
EU03D	2.28	0.07	0.97	4.75
EU04D	2.28	0.07	0.97	4.75
EU05D	2.28	0.07	0.97	4.75
	12.61	7.08	4.24	99.76 ton/yr Potential Limited to less than 97.33 t/yr

Total Surface Coating HAP: 23.92 ton/yr Potential

1415 Main Street

EU01B	0.00	0.00
EU02B	0.00	0.00
EU03B	0.00	0.00
EU07B	0.00	0.00
EU08B	0.00	0.00
EU09B	0.00	0.00
EU04B	0.00	0.00
EU05B	0.00	0.00
	0.00	0.00
Methanol	0.08	0.08
Berylium	0.00	0.00
	0.08 ton/yr	0.08 ton/yr

ton/yr

		Hexane			
Boiler	0.13	**0.12**		0.6	**0.50**
Furnace & Dryers	0.13	**0.21**		0.7	**0.90**
	0.26	**0.33**	**ton/yr**	1.3	**1.40** **ton/yr**

Grand Total:	**24.26**	**24.33**	**ton/yr HAP**	**107.27**	**107.37** **ton/yr PM10**

Insignificant Specialty Powder Manufacturing

EU	Control ID	Control efficiency	HEPA efficiency	throughput (pounds/hr)	amount produced (lbs/hr)	amount collected (lbs/hr)	Potential emissions before controls in lbs/hr	Potential emissions before controls in tons/yr	Potential emissions after controls in lbs/hr	Potential emissions after controls in tons/yr	Integral yes/no
EUS1	008	0.995	0.99999	110	108.75	1.24	1.25	5.475	6.25E-08	2.74E-07	yes
EUS2	015	0.995	0.99999	1879.3	1874.49	4.78	4.81	21.0678	2.41E-07	1.05E-06	yes
EUS3	009	0.995	0.99999	579.3	574.68	4.55	4.62	20.2356	2.31E-07	1.01E-06	yes
EUP4	010	0.995	0.99999	430	424	0.97	6	26.28	3.00E-07	1.31E-06	yes
EUS5	011	0.995	0.99999	770.96	763.21	7.71	7.75	33.945	3.88E-07	1.70E-06	yes
EUS6	012	0.995	0.99999	16150	16138.3	11.69	11.75	51.465	5.88E-07	2.57E-06	yes
EUS7	013	0.995	0.99999	1550	1499.95	49.8	50.05	219.219	2.50E-06	1.10E-05	yes
EUP8	038	0.995	0.99999	290.8	245.4	45.17	45.4	198.852	2.27E-06	9.94E-06	yes
EUP9	N/A	0	0	150	149	N/A	1	4.38	1.00E+00	4.38E+00	N/A
EUS10	014	0.995	0.99999	2315	2310.75	4.23	4.25	18.615	2.13E-07	9.31E-07	yes
EUS12	017	0.995	0.99999	1000	998	0.995	2	8.76	1.00E-07	4.38E-07	N/A
EU013 (process)	001	0.995	0.99999	62000	61980	19.9	20	87.6	1.00E-06	4.38E-06	yes
EU013 (process)	002	0.995	0.99999	4000	3973	1.12(metal)	27	118.26	1.35E-06	5.91E-06	yes
EUS14	003	0.995	0.99999	5950	5899.25	50.5	50.75	222.285	2.54E-06	1.11E-05	yes
EUS15	004	0.995	0.99999	7000	6959	40.8	41	179.58	2.05E-06	8.98E-06	yes
EUS16	006	0.995	0.99999	12600	12533.5	66.16	66.5	291.27	3.33E-06	1.46E-05	yes
EUS17	007	0.995	0.99999	10500	10440	59.7	60	262.8	3.00E-06	1.31E-05	yes
EUS18	005	0.995	0.99999	1450	1444.25	5.72	5.75	25.185	2.88E-07	1.26E-06	yes
EUS19	041	0.995	0.99999	3366	3337.25	28.61	28.75	125.925	1.44E-06	6.30E-06	yes
EUS20	040	0.995	0.99999	2000	1980	19.9	20	87.6	1.00E-06	4.38E-06	yes
EUS21	N/A	0	0	9.41	9.41	N/A	0	0	0.00E+00	0.00E+00	
EUS22	021	0.995	0.99999	345	344.25	0.49	0.75	3.285	3.75E-08	1.64E-07	yes
EUS23	024	0.995	0.99999	1200	1198.5	1.49	1.5	6.57	7.50E-08	3.29E-07	yes
EUS24	026	0.995	0.99999	3900	3897.75	2.24	2.25	9.855	1.13E-07	4.93E-07	yes
EUS25	022	0.995	0.99999	200	199.5	0.05	0.5	2.19	2.50E-08	1.10E-07	yes
EUS25	023	0.995	0.99999	200	199.5	0.05	0.5	2.19	2.50E-08	1.10E-07	yes
EUS25	028	0.995	0.99999	200	199.5	0.05	0.5	2.19	2.50E-08	1.10E-07	yes
EUS26	029	0.995	0.99999	62000	61980	19.9	20	87.6	1.00E-06	4.38E-06	yes
EUS27	025	0.995	0.99999	4000	3973	1.12(metal)	27	118.26	1.35E-06	5.91E-06	yes
EUS28	027	0.995	0.99999	4000	3973	1.12(metal)	27	118.26	1.35E-06	5.91E-06	yes
EUS29	030	0.995	0.99999	900	878	1.43	22	96.36	1.10E-06	4.82E-06	yes
EUS30	032	0.995	0.99999	18800	15264	1.8	3536	15487.68	1.77E-04	7.74E-04	yes
EUP32A	**P32A**	**0.995**	**0.99999**	**750**	**745**	**4.97**	**5**	**21.9**	**2.50E-07**	**1.10E-06**	**yes**
EUP32B	**P32B**	**0.995**	**0.99999**	**750**	**745**	**4.97**	**5**	**21.9**	**2.50E-07**	**1.10E-06**	**yes**
EUS33	**040**	**0.995**	**0.99999**	**3000**	**2995.02**	**4.96**	**4.98**	**21.8124**	**2.49E-07**	**1.09E-06**	**yes**
EUS33	**044**	**0.995**	**0.99999**	**2500**	**2475**	**24.87**	**25**	**109.5**	**1.25E-06**	**5.48E-06**	**yes**
EUS34	**041**	**0.995**	**0.99999**	**750**	**746.25**	**3.73**	**3.75**	**16.425**	**1.88E-07**	**8.21E-07**	**yes**
EUS35	**042**	**0.995**	**0.99999**	**1500**	**1492.5**	**7.46**	**7.5**	**32.85**	**3.75E-07**	**1.64E-06**	**yes**
EUS36	**043**	**0.995**	**0.99999**	**3000**	**2995.02**	**4.96**	**4.98**	**21.8124**	**2.49E-07**	**1.09E-06**	**yes**
EUS37	**048**	**0.995**	**0.99999**	**4000**	**3999.5**		**0.5**	**2.19**	**2.50E-08**	**1.10E-07**	**yes**
EUS41	**044**	**0.995**	**0.99999**	**6650**	**6568.25**		**81.75**	**358.065**	**4.09E-06**	**1.79E-05**	**yes**
EUS42	**045**	**0.995**	**0.99999**	**17200**	**17190**		**10**	**43.8**	**5.00E-07**	**2.19E-06**	**yes**
EUS43	**043**	**0.995**	**0.99999**	**4950**	**4949.23**		**0.77**	**3.3726**	**3.85E-08**	**1.69E-07**	**yes**
EUS44A&	**C44**	**0.995**	**0.99999**	**5125**	**5121.5**		**3.5**	**15.33**	**1.75E-07**	**7.67E-07**	**yes**
EUS45	**C45**	**0.99995**	**0.99999**	**4000**	**450**	**428.75**	**21.25**	**93.075**	**0.00E+00**	**0.00E+00**	**yes**
EUS46	**C46**	**0.99995**	**0.99999**	**1525**	**2500**	**2479.25**	**26.75**	**117.165**	**0.00E+00**	**0.00E+00**	**yes**
EUS47	**C47,C54, C48**	**0.99995**	**0.99999**	**1525,1525, &1525**	**2000**	**1996**	**4**	**17.52**	**0.00E+00**	**0.00E+00**	**yes**
EUS49	**C49**	**0.99995**	**0.99999**	**1525**	**700**	**693**	**9**	**39.42**	**0.00E+00**	**0.00E+00**	**yes**
EUS50	**C50**	**0.99995**	**0.99999**	**1525**	**1400**	**1387**	**15**	**65.7**	**0.00E+00**	**0.00E+00**	**yes**
EUS51	**C51**	**0.99995**	**0.99999**	**1525**	**450**	**449.25**	**3.75**	**16.425**	**0.00E+00**	**0.00E+00**	**yes**
EUS52	**C52**	**0.99995**	**0.99999**	**1525**	**500**	**485**	**16**	**70.08**	**0.00E+00**	**0.00E+00**	**yes**
EUS53	**C53**	**0.99995**	**0.99999**	**1525**	**500**	**480**	**21**	**91.98**	**0.00E+00**	**0.00E+00**	**yes**
EUS55	**C55**	**0.99995**	**0.99999**	**1525**	**650**	**631.75**	**10.25**	**44.895**	**8.00E-05**	**3.50E-04**	**yes**
Total:							**4096.63**	**17943.24**	1.00E+00	4.38E+00	

Potential emissions before controls = amount processed - amount produced
Potential emissions after controls = potential emission before control * 1 - control eff.

326 IAC 6-1-2 Equivalent pound per hour limit for 0.03 grains per dry standard cubic foot

Emission Unit	Control Unit	airflow (acfm)	gr/dscf * cf/min * lb/7000 * 60min/hr = equivalent lb/hr limit	Potential emissions (lb/hr)	potential emissions (gr/dscf)	Are emisson units in compliance?
EUS1	008	4000	**1.03**	6.25E-08	1.82E-09	yes
EUS2	015	4000	**1.03**	2.41E-07	7.03E-09	yes
EUS3	009	900	**0.23**	2.31E-07	2.99E-08	yes
EUP4	010	4000	**1.03**	3.00E-07	8.75E-09	yes
EUS5	011	4000	**1.03**	3.88E-07	1.13E-08	yes
EUS6	012	500	**0.13**	5.88E-07	1.37E-07	yes
EUS7	013	4000	**1.03**	2.50E-06	7.29E-08	yes
EUP8	038	600	**0.15**	2.27E-06	4.41E-07	yes
EUS10	014	4000	**1.03**	2.13E-07	6.21E-09	yes
EUS12	017	2000	**0.51**	1.00E-07	5.83E-09	yes
EU013 (process)	001	4000	**1.03**	1.00E-06	2.92E-08	yes
EU013 (process)	002	4000	**1.03**	1.35E-06	3.94E-08	yes
EUS14	003	4000	**1.03**	2.54E-06	7.41E-08	yes
EUS15	004	4000	**1.03**	2.05E-06	5.98E-08	yes
EUS16	006	4000	**1.03**	3.33E-06	9.71E-08	yes
EUS17	007	4000	**1.03**	3.00E-06	8.75E-08	yes
EUS18	005	4000	**1.03**	2.88E-07	8.40E-09	yes
EUS19	041	4000	**1.03**	1.44E-06	4.20E-08	yes
EUS20	040	4000	**1.03**	1.00E-06	2.92E-08	yes
EUS22	021	1800	**0.46**	3.75E-08	2.43E-09	yes
EUS23	024	3000	**0.77**	7.50E-08	2.92E-09	yes
EUS24	026	3500	**0.90**	1.13E-07	3.77E-09	yes
EUS25	022	2750	**0.71**	2.50E-08	1.06E-09	yes
EUS25	023	3500	**0.90**	2.50E-08	8.33E-10	yes
EUS25	028	2000	**0.51**	2.50E-08	1.46E-09	yes
EUS26	029	2000	**0.51**	1.00E-06	5.83E-08	yes
EUS27	025	2000	**0.51**	1.35E-06	7.88E-08	yes
EUS28	027	4000	**1.03**	1.35E-06	3.94E-08	yes
S-29 **EUS29**	030	2000	**0.51**	1.10E-06	6.42E-08	yes
EUS30	032	2000	**0.51**	1.77E-04	1.03E-05	yes
EUP32A	**P32A**	**750**	**0.19**	**2.50E-07**	**3.89E-08**	**yes**
EUP32B	**P32B**	**750**	**0.19**	**2.50E-07**	**3.89E-08**	**yes**
EUS33	**040**	**3000**	**0.77**	**2.49E-07**	**9.68E-09**	**yes**
EUS33	**044**	**2500**	**0.64**	**1.25E-06**	**5.83E-08**	**yes**
EUS34	**041**	**750**	**0.19**	**1.88E-07**	**2.92E-08**	**yes**
EUS35	**042**	**1500**	**0.39**	**3.75E-07**	**2.92E-08**	**yes**
EUS36	**043**	**3000**	**0.77**	**2.49E-07**	**9.68E-09**	**yes**
EUS37	**048**	**10000**	**0.25**	**0.00E+00**	**0.00E+00**	**yes**
EUS41	**044**	**4000**	**1.03**	**0.00E+00**	**0.00E+00**	**yes**
EUS42	**045**	**4000**	**1.03**	**0.00E+00**	**0.00E+00**	**yes**
EUS43	**043**	**4000**	**1.03**	**0.00E+00**	**0.00E+00**	**yes**
EUS44A&C	**C44**	**4000**	**1.03**	**0.00E+00**	**0.00E+00**	**yes**
EUS45	**C45**	**4000**	**1.03**	**0.00E+00**	**0.00E+00**	**yes**
EUS46	**C46**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS47	**C47,C54, C48**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS49	**C49**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS50	**C50**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS51	**C51**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS52	**C52**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS53	**C53**	**1525**	**0.39**	**0.00E+00**	**0.00E+00**	**yes**
EUS55	**C55**	**1525**	**0.39**	**8.00E-05**	**6.12E-06**	**yes**
1245 Main St						
EU03 **EU03A**	**Baffles**	8400	**2.16**	4.34E+00	0.0602778	yes
EU10A	**Baffles**	9800	**2.52**	4.34E+00	0.0516667	yes
EU12A	**Baffles**	10300	**2.65**	4.34E+00	0.0491586	yes
EU09A	**Baffles**	9800	**2.52**	4.34E+00	0.0516667	yes
EU17A	**C17A**	4000	**1.03**	6.51E-07	1.90E-08	yes
EU14A	**C14A**	5350	**1.38**	6.51E-07	1.42E-08	yes
EU15A	**C15A**	5850	**1.50**	6.51E-07	1.30E-08	yes
EU16A	**C16A**	9300	**2.39**	6.51E-07	8.17E-09	yes
EU01A	**C01A**	11650	**3.00**	6.51E-07	6.52E-09	yes
EU02A	**C02A**	10900	**2.80**	6.51E-07	6.97E-09	yes
EU05A	**C05A**	8000	**2.06**	6.51E-07	9.49E-09	yes
EU06A	**C06A**	11900	**3.06**	6.51E-07	6.38E-09	yes
EU06D	**C06D**	2050	**0.53**	1.63E-07	9.28E-09	yes
EU10D	**C10D**	2150	**0.55**	1.63E-07	8.84E-09	yes
EU04A	**Baffles**	8400	**2.16**	2.17	0.0301389	yes
EU03D	**Baffles**	17450	**4.49**	1.09E+00	0.0072875	yes
EU04D	**Baffles**	13000	**3.34**	1.09E+00	0.0097821	yes
EU05D	**Baffles**	15700	**4.04**	1.09E+00	0.0080998	yes
1415 Main St						
EU01B	**C01B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU02B	**C02B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU03B	**C03B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU07B	**C07B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU08B	**C08B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU09B	**C09B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU04B	**C04B**	3000	**0.77**	2.70E-07	1.05E-08	yes
EU05B	**C05B**	3000	**0.77**	2.70E-07	1.05E-08	yes
Abrasive Blasting						
1245 Main St						
EU01GB		4000	**1.03**	1.80E-02	0.000525	yes
EU02GB		4000	**1.03**	1.80E-02	0.000525	yes
EU001G **EU003G**	**EU001G**	4000	**1.03**	1.66E-02	0.0004842	yes
EU001G **EU004G**	**EU001G**	4968	**1.28**	1.66E-02	0.0003898	yes
EU001G **EU006G**	**EU001G**	4968	**1.28**	1.66E-02	0.0003898	yes
EU001G **EU009G**	**EU001G**	4968	**1.28**	1.66E-02	0.0003898	yes
EU001G **EU0010G**	**EU001G**	4968	**1.28**	1.66E-02	0.0003898	yes
DCE#8	**DCE#8**	4000	**1.03**	3.92E-02	0.0011433	yes
EU005G	**C005G**	300	**0.08**	7.88E-02	0.0306444	yes
EU002G	**C002G**	300	**0.08**	7.88E-02	0.0306444	yes
EU007G	**C007G**	300	**0.08**	7.88E-02	0.0306444	yes
EU008G	**C008G**	600	**0.15**	7.88E-02	0.0153222	yes
EU011G	**C011G**	1500	**0.39**	7.88E-02	0.0061289	yes
EU012G	**C012G**	300	**0.08**	7.88E-02	0.0306444	yes
EU013G	**C013G**	1000	**0.26**	2.61E-02	0.003045	yes
EU014G	**C014G**	600	**0.15**	7.88E-02	0.0153222	yes
1415 Main St						
EU01L	**C01L**	700	**0.18**	4.02E-02	0.0067	yes
EU02L	**C02L**	700	**0.18**	1.11E-02	0.00185	yes
EU01C	**C01C**	3000	**0.77**	5.31E-02	0.002065	yes
EU02C	**C02C**	1600	**0.41**	3.94E-02	0.0028729	yes
EU03C	**C03C**	2200	**0.57**	3.94E-02	0.0020894	yes
EU04C	**C04C**	4000	**1.03**	5.31E-02	0.0015488	yes
EU05C	**C05C**	4000	**1.03**	1.59E-01	0.0046375	yes
EU06C	**C06C**	600	**0.15**	3.94E-02	0.0076611	yes
EU08C	**C08C**	600	**0.15**	3.94E-02	0.0076611	yes
EU10C	**C10C**	600	**0.15**	3.94E-02	0.0076611	yes
EUG1	**C4**	800	**0.21**	3.94E-02	0.0057458	yes
EUG2	**C4**	800	**0.21**	3.94E-02	0.0057458	yes
EUG3	**CG3**	50	**0.01**	1.31E-03	0.0030567	yes
EU11C	**C11C**	4000	**1.03**	7.88E-02	0.0022983	yes
EU12C	**C12C**	4000	**1.03**	7.88E-02	0.0022983	yes

Insignificant Surface Coating

Surface Coating at 1245 Main

EU	Control ID	Control efficiency	HEPA efficiency	throughput (pounds/hr)	amount collected (lbs/hr)	Potential emissions before controls in lbs/hr	Potential emissions before controls in tons/yr	Potential emissions after controls in lbs/hr	Potential emissions after controls in tons/yr	Integral yes/no	
EU03A	**Baffles**	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes	
EU10A	**Baffles**	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes	
EU12A	**Baffles**	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes	
EU09A	**Baffles**	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes	
EU17A	**C17A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU14A	**C14A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU15A	**C15A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU16A	**C16A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU01A	**C01A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU02A	**C02A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU05A	**C05A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU06A	**C06A**	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes	
EU06D	**C06D**	0.9997	0.9999	8.04	5.42	5.42	23.75	1.63E-07	7.12E-07	yes	
EU10D	**C10D**	0.9997	0.9999	8.04	5.42	5.42	23.75	1.63E-07	7.12E-07	yes	
						271.30	1188.27	17.36	76.04		
EU04A	**Baffles**	0.8	0	16.08	8.68	10.85	47.52	2.17E+00	9.50	No	**yes**
EU03D	**Baffles**	0.8	0	8.04	4.34	5.43	23.76	1.09E+00	4.75	No	**yes**
EU04D	**Baffles**	0.8	0	8.04	4.34	5.43	23.76	1.09E+00	4.75	No	**yes**
EU05D	**Baffles**	0.8	0	8.04	4.34	5.43	23.76	1.09E+00	4.75	No	**yes**
						27.13	118.81	5.43	23.76		

Surface Coating at 1415 Main

EU01B	**C01B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU02B	**C02B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU03B	**C03B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU07B	**C07B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU08B	**C08B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU09B	**C09B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU04B	**C04B**	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes	
EU05B	**C05B**	0.9997	0.9999	16.08	9	9.00	39.42	2.70E-07	1.18E-06	yes	
Total:						647.16	2834.56	2.2E-06	9.5E-06		

Potential emissions before controls = amount collected + potential emissons after controls
Potential emissions after controls = (amount collected/ efficiency of control) - amount collected

Insignificant Grit Blasting, Shot or GlassPeen

1245 Main Street

Grit Blast

EU	Control ID	Control efficiency	throughput (pounds/hr)	lbs/hr of material collected	**Potential emissions before controls in lbs/hr**	**Potential emissions before controls in tons/yr**	**Potential emissions after controls in lbs/hr**	**Potential emissions after controls in tons/yr**	Integral yes/no
EU001G	DCE#8	0.995	600	1.78	1.79	7.835578	8.94E-03	3.92E-02	yes
EU002G	C002G	0.99	**600**	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU005G	C005G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU007G	C007G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU008G	C008G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU011G	C011G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU012G	C012G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU013G	C013G	0.99	200	0.59	0.60	2.610303	5.96E-03	2.61E-02	yes
EU014G	C014G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU11C	C11C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU12C	C12C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU003G EU004G EU006G EU009G EU010G	C001G	0.9997	3000	12.6	12.60	55.20	3.78E-03	1.66E-02	yes
Total:					18.57	81.32	1.77E-01	7.74E-01	

Glass Peen

EU01GB	C01GB	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU02GB	C02GB	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
					3.60	15.75	3.60E-02	1.58E-01	

1415 Main Street

Grit Blast

EU01C	C01C	0.99	360	1.2	1.21	5.309091	1.21E-02	5.31E-02	yes
EU02C	C02C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU03C	C03C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU04C	C04C	0.99	360	1.2	1.21	5.309091	1.21E-02	5.31E-02	yes
EU05C	C05C	0.99	360	3.6	3.64	15.92727	3.64E-02	1.59E-01	yes
EU06C	C06C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU08C	C08C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU10C	C10C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU11C	C11C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU12C	C12C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
					14.15	61.98	1.42E-01	6.20E-01	

Glass Peen

*EUG1	C4	0.9999	180	0	0	0	9.00E-03	3.94E-02	yes
*EUG2	C4	0.9999	180	0	0	0	9.00E-03	3.94E-02	yes
*EUG3	CG3	0.99	60	0	0	0	3.00E-04	1.31E-03	yes
							1.83E-02	8.02E-02	

*emissions calculated with an emission factor of 0.01

Shot Peen

EU01L	C01L	0.99	5.36	3.98	4.02	17.60848	4.02E-02	1.76E-01	yes
EU02L	C02L	0.99	1.48	1.1	1.11	4.866667	1.11E-02	4.87E-02	yes
					5.13	22.48	5.13E-02	2.25E-01	

Potential emissions before controls = amount collected + potential emissions after controls
Potential emissions after controls = (amount collected / efficiency of control) - amount collected

Appendix A: Emissions Calculations
Natural Gas Combustion Only
Total MMBtu combined =
Insig. TBC & Chrome Oxide Furnaces & TBC Spray Dryers
Identified as EU11A thru EU11G & EU013 (001 & 002)
Company Name: Praxair Surface Technologies
Address City IN Zip: 1500 Polco Street, Indianapolis, Indiana
TV: T097-7487-00060
Reviewer: Monica Dick
Date: 9-3-99

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
21.4	187.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	0.7	0.1	9.4	0.5	7.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Total MMBtu combined = 5.63mmBtu per hr
three (3) 0.23mmBtu TBC Spray Dryers identified as EUS38 7 EUS59
one (1) 0.84mmBtu TBC Spray Dryers identified as EUS40
one (1) 3.6mmBtu elevator kiln furnace identified as Bickley
one (1) 0.5mmBtu roller harth furnace identified as Ipson

Heat Input Capacity MMBtu/hr	**Potential Throughput MMCF/yr**
5.63	**49.3**

	Pollutant					
	PM*	**PM10***	**SO2**	**NOx**	**VOC**	**CO**
Emission Factor in lb/MMCF	**7.6**	**7.6**	**0.6**	**100.0 **see below**	**5.5**	**84.0**
Potential Emission in tons/yr	**0.19**	**0.19**	**0.01**	**2.47**	**0.14**	**2.07**
Total from Insig units	**0.37**	**0.90**	**0.07**	**11.84**	**0.65**	**9.94**

***PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.**
****Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32**

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
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See page 2 for HAPs emissions calculations.
updated 4/99

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	**2.486E-04**	**1.421E-04**	**8.879E-03**	**2.131E-01**	**4.025E-04**

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	**5.920E-05**	**1.302E-04**	**1.657E-04**	**4.499E-05**	**2.486E-04**

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Praxair Surface Technologies**
Address City IN Zip: **1500 Polco Street, Indianapolis, Indiana**
TV: **T097-7487-00060**
Reviewer: **Monica Dick**
Date: **9-3-99**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
14.6	127.9

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.5	0.0	6.4	0.4	5.4

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

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updated 4/99

See page 2 for HAPs emissions calculations.

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.343E-04	7.674E-05	4.796E-03	1.151E-01	2.174E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.197E-05	7.034E-05	8.953E-05	2.430E-05	1.343E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
Total MMBtu combined =
Insig. TBC & Chrome Oxide Furnaces & TBC Spray Dryers
Identified as EU11A thru EU11G & EU013 (001 & 002)
Company Name: Praxair Surface Technologies
Address City IN Zip: 1500 Polco Street, Indianapolis, Indiana
TV: T097-7487-00060
Reviewer: Monica Dick
Date: 9-3-99

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
21.4	187.5

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	0.7	0.1	9.4	0.5	7.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

gasc99.wk4 9/95
updated 4/99

See page 2 for HAPs emissions calculations.

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.968E-04	1.125E-04	7.030E-03	1.687E-01	3.187E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.687E-05	1.031E-04	1.312E-04	3.562E-05	1.968E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methanol Cleaning
(Over 2 yr period)

25 x 55 gal drums of methanol purchased = 1375 gallon throughput

1320 gallons recovered and removed from plant

1375gal/2 yr - 1320gal/2 yr = 55gal/2yr emission of methanol

worset case if methanol weighs as much as gasoline (6.17 lb/gal) 6.17lbs/gal * 55gal/2yr = 247.5lb/yr
139.68lb/yr * t/2000lb = 0.08

Potential emissions = **less than 0.08t/yr**

Berylium

one (1) of every fifty (50) parts coated is cut to QA/QC coating of parts

emissions from this process are below 0.00 t/year

326 IAC 6-1-2 Equivalent pound per hour limit for 0.03 grains per dry standard cubic foot

Emission Unit	Control Unit	airflow (acfm)	gr/dscf * cf/min * lb/7000 * 60min/hr = equivalent lb/hr limit	Potential emissions (lb/hr)	potential emissions (gr/dscf)	Are emisson units in compliance?
EUS1	008	4000	**1.03**	6.25E-08	1.82E-09	yes
EUS2	015	4000	**1.03**	2.41E-07	7.03E-09	yes
EUS3	009	900	**0.23**	2.31E-07	2.99E-08	yes
EUP4	010	4000	**1.03**	3.00E-07	8.75E-09	yes
EUS5	011	4000	**1.03**	3.88E-07	1.13E-08	yes
EUS6	012	500	**0.13**	5.88E-07	1.37E-07	yes
EUS7	013	4000	**1.03**	2.50E-06	7.29E-08	yes
EUP8	038	600	**0.15**	2.27E-06	4.41E-07	yes
EUS10	014	4000	**1.03**	2.13E-07	6.21E-09	yes
EUS12	017	2000	**0.51**	1.00E-07	5.83E-09	yes
EU013 (process)	001	4000	**1.03**	1.00E-06	2.92E-08	yes
EU013 (process)	002	4000	**1.03**	1.35E-06	3.94E-08	yes
EUS14	003	4000	**1.03**	2.54E-06	7.41E-08	yes
EUS15	004	4000	**1.03**	2.05E-06	5.98E-08	yes
EUS16	006	4000	**1.03**	3.33E-06	9.71E-08	yes
EUS17	007	4000	**1.03**	3.00E-06	8.75E-08	yes
EUS18	005	4000	**1.03**	2.88E-07	8.40E-09	yes
EUS19	041	4000	**1.03**	1.44E-06	4.20E-08	yes
EUS20	040	4000	**1.03**	1.00E-06	2.92E-08	yes
EUS22	021	1800	**0.46**	3.75E-08	2.43E-09	yes
EUS23	024	3000	**0.77**	7.50E-08	2.92E-09	yes
EUS24	026	3500	**0.90**	1.13E-07	3.77E-09	yes
EUS25	022	2750	**0.71**	2.50E-08	1.06E-09	yes
EUS25	023	3500	**0.90**	2.50E-08	8.33E-10	yes
EUS25	028	2000	**0.51**	2.50E-08	1.46E-09	yes
EUS26	029	2000	**0.51**	1.00E-06	5.83E-08	yes
EUS27	025	2000	**0.51**	1.35E-06	7.88E-08	yes
EUS28	027	4000	**1.03**	1.35E-06	3.94E-08	yes
S-29	030	2000	**0.51**	1.10E-06	6.42E-08	yes
EUS30	032	2000	**0.51**	1.77E-04	1.03E-05	yes
1245 Main St						
EU03		8400	**2.16**	4.34E+00	0.0602778	yes
EU10A		9800	**2.52**	4.34E+00	0.0516667	yes
EU12A		10300	**2.65**	4.34E+00	0.0491586	yes
EU09A		9800	**2.52**	4.34E+00	0.0516667	yes
EU17A		4000	**1.03**	6.51E-07	1.90E-08	yes
EU14A		5350	**1.38**	6.51E-07	1.42E-08	yes
EU15A		5850	**1.50**	6.51E-07	1.30E-08	yes
EU16A		9300	**2.39**	6.51E-07	8.17E-09	yes
EU01A		11650	**3.00**	6.51E-07	6.52E-09	yes
EU02A		10900	**2.80**	6.51E-07	6.97E-09	yes
EU05A		8000	**2.06**	6.51E-07	9.49E-09	yes
EU06A		11900	**3.06**	6.51E-07	6.38E-09	yes
EU06D		2050	**0.53**	1.63E-07	9.28E-09	yes
EU10D		2150	**0.55**	1.63E-07	8.84E-09	yes
EU04A		8400	**2.16**	2.17	0.0301389	yes
EU03D		17450	**4.49**	1.09E+00	0.0072875	yes
EU04D		13000	**3.34**	1.09E+00	0.0097821	yes
EU05D		15700	**4.04**	1.09E+00	0.0080998	yes
1415 Main St						
EU01B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU02B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU03B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU07B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU08B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU09B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU04B		3000	**0.77**	2.70E-07	1.05E-08	yes
EU05B		3000	**0.77**	2.70E-07	1.05E-08	yes
Abrasive Blasting						
1245 Main St						
EU01GB		4000	**1.03**	1.80E-02	0.000525	yes
EU02GB		4000	**1.03**	1.80E-02	0.000525	yes
EU001G		4000	**1.03**	1.66E-02	0.0004842	yes
EU001G		4968	**1.28**	1.66E-02	0.0003898	yes
EU001G		4968	**1.28**	1.66E-02	0.0003898	yes
EU001G		4968	**1.28**	1.66E-02	0.0003898	yes
EU001G		4968	**1.28**	1.66E-02	0.0003898	yes
DCE#8		4000	**1.03**	3.92E-02	0.0011433	yes
EU005G		300	**0.08**	7.88E-02	0.0306444	yes
EU002G		300	**0.08**	7.88E-02	0.0306444	yes
EU007G		300	**0.08**	7.88E-02	0.0306444	yes
EU008G		600	**0.15**	7.88E-02	0.0153222	yes
EU011G		1500	**0.39**	7.88E-02	0.0061289	yes
EU012G		300	**0.08**	7.88E-02	0.0306444	yes
EU013G		1000	**0.26**	2.61E-02	0.003045	yes
EU014G		600	**0.15**	7.88E-02	0.0153222	yes
1415 Main St						
EU01L		700	**0.18**	4.02E-02	0.0067	yes
EU02L		700	**0.18**	1.11E-02	0.00185	yes
EU01C		3000	**0.77**	5.31E-02	0.002065	yes
EU02C		1600	**0.41**	3.94E-02	0.0028729	yes
EU03C		2200	**0.57**	3.94E-02	0.0020894	yes
EU04C		4000	**1.03**	5.31E-02	0.0015488	yes
EU05C		4000	**1.03**	1.59E-01	0.0046375	yes
EU06C		600	**0.15**	3.94E-02	0.0076611	yes
EU08C		600	**0.15**	3.94E-02	0.0076611	yes
EU10C		600	**0.15**	3.94E-02	0.0076611	yes
EUG1		800	**0.21**	3.94E-02	0.0057458	yes
EUG2		800	**0.21**	3.94E-02	0.0057458	yes
EUG3		50	**0.01**	1.31E-03	0.0030567	yes
EU11C		4000	**1.03**	7.88E-02	0.0022983	yes
EU12C		4000	**1.03**	7.88E-02	0.0022983	yes

Praxair Surface Technologies
Potential emissions of all Emission units based on mass balance calculations

	HAPs	PM10
Specialty Powder		
EUS1	0.00	0.00
EUS2	0.00	0.00
EUS3	0.00	0.00
EUP4	0.00	0.00
EUS5	0.00	0.00
EUS6	0.00	0.00
EUS7	0.00	0.00
EUP8	0.00	0.00
EUP9	0.00	4.38
EUS10	0.00	0.00
EUS12	0.00	0.00
EU013 (process)	0.00	0.00
EU013 (process)	0.00	0.00
EUS14	0.00	0.00
EUS15	0.00	0.00
EUS16	0.00	0.00
EUS17	0.00	0.00
EUS18	0.00	0.00
EUS19	0.00	0.00
EUS20	0.00	0.00
EUS21	0.00	0.00
EUS22	0.00	0.00
EUS23	0.00	0.00
EUS24	0.00	0.00
EUS25	0.00	0.00
EUS25	0.00	0.00
EUS25	0.00	0.00
EUS26	0.00	0.00
EUS27	0.00	0.00
EUS28	0.00	0.00
S-29	0.00	0.00
EUS30	0.00	0.00
Total:	0.00 ton/yr	4.38 ton/yr

1245 Main Street
Grit Blasting

EU003G		
EU004G		
EU006G	0.00	0.02
EU009G		
EU010G		
EU001G	0.00	0.04
EU002G	0.00	0.08
EU005G	0.00	0.08
EU007G	0.00	0.08
EU008G	0.00	0.08
EU011G	0.00	0.08
EU012G	0.00	0.08
EU013G	0.00	0.03
EU014G	0.00	0.08
EU11C	0.00	0.08
EU12C	0.00	0.08
EU01GB	0.00	0.08
EU02GB	0.00	0.08
	0.00 ton/yr	0.97 ton/yr

1415 Main Street

Grit Blast	**HAPs**	**PM10**
EU01C	0.00	0.05
EU02C	0.00	0.04
EU03C	0.00	0.04
EU04C	0.00	0.05
EU05C	0.00	0.02
EU06C	0.00	0.04
EU08C	0.00	0.04
EU10C	0.00	0.04
EU11C	0.00	0.08
EU12C	0.00	0.08
EUG1	0.00	0.04
EUG2	0.00	0.04
EUG3	0.00	0.00
EU01L	0.00	0.18
EU02L	0.00	0.05
	0.00 ton/yr	0.78 t/yr

1245 Main Street

Surface Coating	**Cr**	**Co**	**Ni**	
EU03A	1.44	1.40	0.33	19.00
EU10A	1.44	1.40	0.33	19.00
EU12A	1.44	1.40	0.33	19.00
EU09A	1.44	1.40	0.33	19.00
EU17A	0.00	0.00	0.00	0.00
EU14A	0.00	0.00	0.00	0.00
EU15A	0.00	0.00	0.00	0.00
EU16A	0.00	0.00	0.00	0.00
EU01A	0.00	0.00	0.00	0.00
EU02A	0.00	0.00	0.00	0.00
EU05A	0.00	0.00	0.00	0.00
EU06A	0.00	0.00	0.00	0.00
EU06D	0.00	0.00	0.00	0.00
EU10D	0.00	0.00	0.00	0.00
EU04A	0.00	1.27	0.00	9.51
EU03D	2.28	0.07	0.97	4.75
EU04D	2.28	0.07	0.97	4.75
EU05D	2.28	0.07	0.97	4.75
	12.61	7.08	4.24	99.76 ton/yr Potential Limited to less than 97.33 t/yr

Total Surface Coating HAP: 23.92 ton/yr Potential

1415 Main Street

EU01B	0.00		0.00
EU02B	0.00		0.00
EU03B	0.00		0.00
EU07B	0.00		0.00
EU08B	0.00		0.00
EU09B	0.00		0.00
EU04B	0.00		0.00
EU05B	0.00		0.00
	0.00		0.00
Methanol	0.08		0.08
Berylium	0.00		0.00
	0.08 ton/yr	ton/yr	0.08 ton/yr
Boiler	0.13		0.6
Furnace & Dryers	0.13		0.7
	0.26 ton/yr		1.3 ton/yr

Grand Total: 0.34 ton/yr HAP 107.27 ton/yr PM10

Insignificant Specialty Powder Manufacturing

EU	Control ID	Control efficiency	HEPA efficiency	throughput (pounds/hr)	amount produced (lbs/hr)	amount collected (lbs/hr)	**Potential emissions before controls in lbs/hr**	**Potential emissions before controls in tons/yr**	**Potential emissions after controls in lbs/hr**	**Potential emissions after controls in tons/yr**	Integral yes/no
EUS1	008	0.995	0.99999	110	108.75	1.24	1.25	5.475	6.25E-08	2.74E-07	yes
EUS2	015	0.995	0.99999	1879.3	1874.49	4.78	4.81	21.0678	2.41E-07	1.05E-06	yes
EUS3	009	0.995	0.99999	579.3	574.68	4.55	4.62	20.2356	2.31E-07	1.01E-06	yes
EUP4	010	0.995	0.99999	430	424	0.97	6	26.28	3.00E-07	1.31E-06	yes
EUS5	011	0.995	0.99999	770.96	763.21	7.71	7.75	33.945	3.88E-07	1.70E-06	yes
EUS6	012	0.995	0.99999	16150	16138.3	11.69	11.75	51.465	5.88E-07	2.57E-06	yes
EUS7	013	0.995	0.99999	1550	1499.95	49.8	50.05	219.219	2.50E-06	1.10E-05	yes
EUP8	038	0.995	0.99999	290.8	245.4	45.17	45.4	198.852	2.27E-06	9.94E-06	yes
EUP9	N/A	0	0	150	149	N/A	1	4.38	1.00E+00	4.38E+00	N/A
EUS10	014	0.995	0.99999	2315	2310.75	4.23	4.25	18.615	2.13E-07	9.31E-07	yes
EUS12	017	0.995	0.99999	1000	998	0.995	2	8.76	1.00E-07	4.38E-07	N/A
EU013 (process)	001	0.995	0.99999	62000	61980	19.9	20	87.6	1.00E-06	4.38E-06	yes
EU013 (process)	002	0.995	0.99999	4000	3973	1.12(metal)	27	118.26	1.35E-06	5.91E-06	yes
EUS14	003	0.995	0.99999	5950	5899.25	50.5	50.75	222.285	2.54E-06	1.11E-05	yes
EUS15	004	0.995	0.99999	7000	6959	40.8	41	179.58	2.05E-06	8.98E-06	yes
EUS16	006	0.995	0.99999	12600	12533.5	66.16	66.5	291.27	3.33E-06	1.46E-05	yes
EUS17	007	0.995	0.99999	10500	10440	59.7	60	262.8	3.00E-06	1.31E-05	yes
EUS18	005	0.995	0.99999	1450	1444.25	5.72	5.75	25.185	2.88E-07	1.26E-06	yes
EUS19	041	0.995	0.99999	3366	3337.25	28.61	28.75	125.925	1.44E-06	6.30E-06	yes
EUS20	040	0.995	0.99999	2000	1980	19.9	20	87.6	1.00E-06	4.38E-06	yes
EUS21	N/A	0	0	9.41	9.41	N/A	0	0	0.00E+00	0.00E+00	
EUS22	021	0.995	0.99999	345	344.25	0.49	0.75	3.285	3.75E-08	1.64E-07	yes
EUS23	024	0.995	0.99999	1200	1198.5	1.49	1.5	6.57	7.50E-08	3.29E-07	yes
EUS24	026	0.995	0.99999	3900	3897.75	2.24	2.25	9.855	1.13E-07	4.93E-07	yes
EUS25	022	0.995	0.99999	200	199.5	0.05	0.5	2.19	2.50E-08	1.10E-07	yes
EUS25	023	0.995	0.99999	200	199.5	0.05	0.5	2.19	2.50E-08	1.10E-07	yes
EUS25	028	0.995	0.99999	200	199.5	0.05	0.5	2.19	2.50E-08	1.10E-07	yes
EUS26	029	0.995	0.99999	62000	61980	19.9	20	87.6	1.00E-06	4.38E-06	yes
EUS27	025	0.995	0.99999	4000	3973	1.12(metal)	27	118.26	1.35E-06	5.91E-06	yes
EUS28	027	0.995	0.99999	4000	3973	1.12(metal)	27	118.26	1.35E-06	5.91E-06	yes
S-29	030	0.995	0.99999	900	878	1.43	22	96.36	1.10E-06	4.82E-06	yes
EUS30	032	0.995	0.99999	18800	15264	1.8	3536	15487.68	1.77E-04	0.00E+00	yes
Total:							4096.63	17943.24	1.00E+00	4.38E+00	

Potential emissions before controls = amount processed - amount produced
Potential emissions after controls = potential emission before control * 1 - control eff.

Insignificant Surface Coating

Surface Coating at 1245 Main

EU	Control ID	Control efficiency	HEPA efficiency	throughput (pounds/hr)	amount collected (lbs/hr)	**Potential emissions before controls in lbs/hr**	**Potential emissions before controls in tons/yr**	**Potential emissions after controls in lbs/hr**	**Potential emissions after controls in tons/yr**	**Integral yes/no**
EU03A	Baffles	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes
EU10A	Baffles	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes
EU12A	Baffles	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes
EU09A	Baffles	0.8	0	32.16	17.36	21.70	95.05	4.34E+00	1.90E+01	yes
EU17A	C17A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU14A	C14A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU15A	C15A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU16A	C16A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU01A	C01A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU02A	C02A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU05A	C05A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU06A	C06A	0.9997	0.9999	32.16	21.7	21.71	95.07	6.51E-07	2.85E-06	yes
EU06D	C06D	0.9997	0.9999	8.04	5.42	5.42	23.75	1.63E-07	7.12E-07	yes
EU10D	C10D	0.9997	0.9999	8.04	5.42	5.42	23.75	1.63E-07	7.12E-07	yes
						271.30	1188.27	17.36	76.04	
EU04A	Baffles	0.8	0	16.08	8.68	10.85	47.52	2.17E+00	9.50	No
EU03D	Baffles	0.8	0	8.04	4.34	5.43	23.76	1.09E+00	4.75	No
EU04D	Baffles	0.8	0	8.04	4.34	5.43	23.76	1.09E+00	4.75	No
EU05D	Baffles	0.8	0	8.04	4.34	5.43	23.76	1.09E+00	4.75	No
						27.13	118.81	5.43	23.76	

Surface Coating at 1415 Main

EU01B	C01B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU02B	C02B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU03B	C03B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU07B	C07B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU08B	C08B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU09B	C09B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU04B	C04B	0.9997	0.9999	16.08	9.00	9.00	39.43	2.70E-07	1.18E-06	yes
EU05B	C05B	0.9997	0.9999	16.08	9	9.00	39.42	2.70E-07	1.18E-06	yes
Total:						647.16	2834.56	2.2E-06	9.5E-06	

Potential emissions before controls = amount collected + potential emissons after controls
Potential emissions after controls = (amount collected/ efficiency of control) - amount collected

Insignificant Grit Blasting, Shot or GlassPeen

1245 Main Street

Grit Blast

EU	Control ID	Control efficiency	throughput (pounds/hr)	lbs/hr of material collected	**Potential emissions before controls in lbs/hr**	**Potential emissions before controls in tons/yr**	**Potential emissions after controls in lbs/hr**	**Potential emissions after controls in tons/yr**	Integral yes/no
EU001G	DCE#8	0.995	600	1.78	1.79	7.835578	8.94E-03	3.92E-02	yes
EU002G	C002G	0.99		1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU005G	C005G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU007G	C007G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU008G	C008G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU011G	C011G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU012G	C012G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU013G	C013G	0.99	200	0.59	0.60	2.610303	5.96E-03	2.61E-02	yes
EU014G	C014G	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU11C	C11C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU12C	C12C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU003G EU004G EU006G EU009G EU010G	C001G	0.9997	3000	12.6	12.60	55.20	3.78E-03	1.66E-02	yes
Total:					18.57	81.32	1.77E-01	7.74E-01	

Glass Peen

EU01GB	C01GB	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU02GB	C02GB	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
					3.60	15.75	3.60E-02	1.58E-01	

1415 Main Street

Grit Blast

EU01C	C01C	0.99	360	1.2	1.21	5.309091	1.21E-02	5.31E-02	yes
EU02C	C02C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU03C	C03C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU04C	C04C	0.99	360	1.2	1.21	5.309091	1.21E-02	5.31E-02	yes
EU05C	C05C	0.99	360	3.6	3.64	15.92727	3.64E-02	1.59E-01	yes
EU06C	C06C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU08C	C08C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU10C	C10C	0.99	360	0.89	0.90	3.937576	8.99E-03	3.94E-02	yes
EU11C	C11C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
EU12C	C12C	0.99	600	1.78	1.80	7.875152	1.80E-02	7.88E-02	yes
					14.15	61.98	1.42E-01	6.20E-01	

Glass Peen

*EUG1	C4	0.9999	180	0	0	0	9.00E-03	3.94E-02	yes
*EUG2	C4	0.9999	180	0	0	0	9.00E-03	3.94E-02	yes
*EUG3	CG3	0.99	60	0	0	0	3.00E-04	1.31E-03	yes
							1.83E-02	8.02E-02	

*emissions calculated with an emission factor of 0.01

Shot Peen

EU01L	C01L	0.99	5.36	3.98	4.02	17.60848	4.02E-02	1.76E-01	yes
EU02L	C02L	0.99	1.48	1.1	1.11	4.866667	1.11E-02	4.87E-02	yes
					5.13	22.48	5.13E-02	2.25E-01	

Potential emissions before controls = amount collected + potential emissions after controls
Potential emissions after controls = (amount collected / efficiency of control) - amount collected